

**A. Description**

During the first quarter 2019, Duke Energy Carolinas product managers prepared reports on each program describing the offerings and detailing each program's performance. This Executive Summary describes how the Company performed at an aggregate level during the full year of Vintage 2019 in comparison to as-filed information. Program-specific details are provided in the individual reports.

**Program reports include:**

<b>Program</b>	<b>Category</b>	<b>Customer</b>
Energy Assessments	EE	Residential
Energy Efficient Appliances and Devices	EE	Residential
Energy Efficiency Education Programs	EE	Residential
Residential – Smart \$aver Energy Efficiency Program (HVAC EE)	EE	Residential
Income Qualified Energy Efficiency and Weatherization Assistance	EE	Residential
My Home Energy Report	EE	Residential
Multi-Family Energy Efficiency	EE	Residential
Non-Residential Smart \$aver Prescriptive	EE	Non-residential
Non-Residential Smart \$aver Custom	EE	Non-residential
Non-Residential Smart \$aver Custom Assessment	EE	Non-residential
Non-Residential Smart \$aver Performance Incentive	EE	Non-residential
Small Business Energy Saver	EE	Non-residential
EnergyWise for Business	EE/DSM	Non-residential
Power Manager	DSM	Residential
PowerShare	DSM	Non-residential

**Audience**

All retail Duke Energy Carolinas customers who have not opted out.

**B & C. Impacts, Participants and Expenses**

The tables below include actual results for the full year of Vintage 2020 in comparison to as-filed data for Vintage 2020.

The Company includes the number of units achieved and a percentage comparison to the as filed values. The unit of measure varies by measure as a participant, for example, may be a single LED bulb, a kW, a kWh, a household or a square foot. Due to the multiple measures in a given program or programs, units may appear skewed and are not easily comparable.

Carolinas System Summary<sup>1</sup>

<b><u>\$ in millions, rounded</u></b>	<b>Vintage 2020 As Filed</b>	<b>Vintage 2020 YTD December 31, 2020</b>	<b>% of Target</b>
<b>NPV of Avoided Cost</b>	<b>\$372.9</b>	<b>\$328.0</b>	<b>88%</b>
<b>Program Cost</b>	<b>\$136.1</b>	<b>\$110.7</b>	<b>81%</b>
<b>MW<sup>2</sup></b>	<b>1,118.7</b>	<b>1,025.3</b>	<b>92%</b>
<b>MWH</b>	<b>694,991.1</b>	<b>650,226.3</b>	<b>94%</b>
<b>Units</b>	<b>81,704,028</b>	<b>43,919,579</b>	<b>54%</b>

1) Values are reflected at the system level.

2) As filed MW are annual maximum peak. Coincident peak is tracked for impacts.

Carolinas Demand Response Summary<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$124.3</b>	<b>\$111.8</b>	<b>90%</b>
<b>Program Cost</b>	<b>\$38.1</b>	<b>\$29.3</b>	<b>77%</b>
<b>MW<sup>2</sup></b>	<b>976.3</b>	<b>881.6</b>	<b>90%</b>
<b>MWH</b>	<b>2,557.6</b>	<b>1,297.2</b>	<b>51%</b>
<b>Units<sup>3</sup></b>	<b>922,905</b>	<b>831,970</b>	<b>90%</b>

1) Values are reflected at the system level.

2) MW capability derived by taking the average over the PowerShare and PowerManager contract periods.

3) Units included in filing represented kW at meter, rather than number of participants. YTD value reflects average participation for 2020.

Carolinas Energy Efficiency Summary<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$248.5</b>	<b>\$216.2</b>	<b>87%</b>
<b>Program Cost</b>	<b>\$98.0</b>	<b>\$81.4</b>	<b>83%</b>
<b>MW<sup>2</sup></b>	<b>142.5</b>	<b>143.7</b>	<b>101%</b>
<b>MWH</b>	<b>692,433.5</b>	<b>648,929.1</b>	<b>94%</b>
<b>Units</b>	<b>80,781,123</b>	<b>43,087,609</b>	<b>53%</b>

1) Values are reflected at the system level.

2) As filed MW are annual maximum peak. Coincident peak is tracked for impacts.

**D. Qualitative Analysis**

Energy efficiency impacts have primarily been driven by lighting measures for both residential and non-residential customers. This is a result of a higher take-rate for lighting offerings than originally projected.

**Highlights**Energy Efficiency

Customer participation continues to be largely driven by lighting and assessments programs. These measures provide customers with a relatively low-cost efficiency upgrade, with minimal effort, creating a positive initial energy efficiency experience.

Demand Side Management (DSM)

The DSM portfolio is comprised of PowerShare (non-residential), Power Manager (residential), and EnergyWise for Business (non-residential) programs. The impacts and participation were very close to the 2019 as-filed targets.

**Issues**

A few of the Company's programs filed for program modifications at the close of the year. The Company faces a significant challenge with reductions in avoided costs, making programs and their measures potentially less impactful. As a result of this and other factors, the Company's continued assessment of its portfolio may result in the removal of or change in measures.

### **Potential Changes**

Several programs are reviewing their current processes and are considering potential changes to increase customer adoption. Potential changes are discussed in individual program reports.

### **E. Marketing Strategy**

Located in individual reports.

### **F. Evaluation, Measurement and Verification**

Located in individual program reports.

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## A. Description

The purpose of the Low Income Energy Efficiency and Weatherization Assistance Program ("Program") is to assist low income customers with installing energy efficiency measures in their homes. There are three offerings currently in the Program:

- Neighborhood Energy Saver ("NES")
- Weatherization and Equipment Replacement Program ("WERP")
- Refrigerator Replacement Program ("RRP").

WERP and RRP are available for income-qualified customers in Duke Energy Carolinas, LLC's (the "Company's") service territory for existing, individually metered single-family homes, condominiums, and mobile homes. Funds are available for (i.) weatherization measures and/or (ii.) heating system replacement with a 15 or greater SEER heat pump, and/or (iii.) refrigerator replacement with an Energy Star appliance. The measures eligible for funding will be determined by a full energy audit of the residence. Based on the results of the audit, customers are placed into a tier based on energy usage so that high energy users to receive more extensive weatherization measures. (Tier 1 provides up to \$600 for energy efficiency services; and Tier 2 provides up to \$4,000 for energy efficiency services, including insulation and up to \$6,000 for HVAC replacement.) WERP and RRP are delivered in coordination with State agencies that administer the state's weatherization programs.

Customers participating in NES receive a walk-through energy assessment to identify energy efficiency opportunities in the customer's home and a one-on-one education on energy efficiency techniques and measures. Additionally, the customer receives a comprehensive package of energy efficient measures. NES participants may have the measures listed below installed in their homes based on the opportunities identified during the energy assessment.

1. Energy Efficient Bulbs - Up to 15 energy efficient bulbs (LEDs) to replace incandescent bulbs
2. Electric Water Heater Wrap and Insulation for Water Pipes
3. Electric Water Heater Temperature Check and Adjustment
4. Water Saving Faucet Aerators - Up to three faucet aerators
5. Water Saving Showerheads - Up to two showerheads
6. Wall Plate Thermometer
7. HVAC Winterization Kits – Up to three kits for wall/window air conditioning units will be provided along with education on the proper use, installation and value of the winterization kit as a method of stopping air infiltration.
8. HVAC Filters - A one-year supply of HVAC filters will be provided along with instructions on the proper method for installing a replacement filter.
9. Air Infiltration Reduction Measures - Weather stripping, door sweeps, caulk, foam sealant and clear patch tape will be installed to reduce or stop air infiltration around doors, windows, attic hatches and plumbing penetrations.

## Audience

WERP is available to qualified customers in existing individually metered, owner-occupied single-family residences, condominiums or manufactured homes.

RRP is available to qualified customers in individually metered residences irrespective of whether the property owner or the tenant owns the refrigerator.

NES is available to individually metered residential customers in selected neighborhoods where ~50% of the homeowners have income equal to or less than 200% of the Federal Poverty Guidelines, based on third party and census data.

**B & C. Impacts, Participants and Expenses**Income Qualified Energy Efficiency and Weatherization Assistance<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$1.7</b>	<b>\$1.1</b>	<b>65%</b>
<b>Program Cost</b>	<b>\$8.7</b>	<b>\$2.8</b>	<b>32%</b>
<b>MW</b>	<b>0.7</b>	<b>0.2</b>	<b>37%</b>
<b>MWH</b>	<b>4,246.0</b>	<b>2,166.3</b>	<b>51%</b>
<b>Units</b>	<b>10,406</b>	<b>2,255</b>	<b>22%</b>

1) Values are reflected at the system level.

**D. Qualitative Analysis****Highlights**

**Neighborhood Energy Saver:** After receiving regulatory approval from both the North Carolina Utilities Commission and the South Carolina Public Service Commission in the fall of 2012, the Program was officially launched by the Company in March 2013. The yearly goal is to serve a minimum of 8,926 households. Honeywell Building Solutions was awarded the contract through a competitive bid process to administer the Program.

The Program started 2020 offering free walk-through energy assessments and installing measures in the homes of customers in Burlington NC, Charlotte NC and Blacksburg SC neighborhoods. Work stopped in March 2020 due to the Covid-19 virus pandemic and the program is still waiting on authorization to resume. It is anticipated that work on the Program will resume in the first quarter of 2021.

**Weatherization:** The Company launched WERP and RRP in February 2015 in North and South Carolina. The Company selected the program administrator, North Carolina Community Action Agency (NCCAA), in December 2014 via competitive bidding. The company is working with the NC and SC Weatherization Agencies to deliver this program.

In 2020, 382 homes received weatherization in conjunction with the DOE weatherization program, with 120 refrigerators replaced, 52 Tier 1 services provided, and 330 Tier 2 services provided.

**E. Marketing Strategy**

**Neighborhood Energy Saver:** NES continues to target neighborhoods with a significant low-income customer base using a grassroots marketing approach to interact on an individual customer basis and gain trust. Participation is driven through a neighborhood kick-off event that includes trusted community leaders and local and state officials explaining the benefits of the Program. The purpose of the kick-off event is to rally the neighborhood around energy efficiency and to educate customers on methods to lower their energy bills. Customers have the option to make an appointment for an energy assessment at the time of the event.

In addition to the kick-off event, the Company plans to use the following avenues to inform eligible customers about the Program:

- Direct mail (letters and reminder post cards)
- Door hangers
- Press releases and/or neighborhood flyers
- Community presentations and partnerships
- Inclusion in community publications such as newsletters, etc.

**Weatherization:** WERP and RRP plan to piggy-back the marketing efforts of the current state Weatherization Assistance Programs administered by the state weatherization service providers. Additionally, agencies may utilize referrals generated from other Company energy efficiency programs as well as from their existing pool of weatherization applicants.

### **Potential Changes**

The NES Program received authorization to begin offering in 2020 some additional measures to income-qualified customers with high energy burdens in the designated NES neighborhoods. This addition to the program is ready to begin as soon as the program resumes its field operation and has an annual goal of 1200 homes. Based on the opportunities identified during the energy assessment the customers could be eligible to receive the following measures:

1. Attic insulation
2. Duct Sealing
3. Air Sealing w/Blower Door
4. Floor/Belly Insulation in Mobile Homes
5. Smart Thermostat

### **F. Evaluation, Measurement and Verification**

The previous evaluation for the Neighborhood Energy Saver portion of the Program was completed late in the fourth quarter of 2019. The next evaluation, which will cover the period July 2018 –June 2019, is scheduled to begin in the first quarter of 2021. The final report is scheduled for completion in the fourth quarter of 2021.

## **A. Description**

The Energy Efficient Appliances and Devices program ("Program") offers a variety of measures to eligible Duke Energy Carolinas, LLC (the "Company") customers to facilitate a reduction in their energy consumption. The Program includes offers for lighting, water measures, smart strips and smart thermostats through the online store, website and points of purchase.

### **Free LED Program**

The Free LED (Light Emitting Diode) program was designed to increase the energy efficiency of residential customers by offering customers 9 watt A19 LEDs to install in high-use fixtures within their homes.

The LEDs were offered through multiple channels to eligible customers, including an on-demand ordering platform which enabled eligible customers to request LEDs and have them shipped directly to their homes.

The program consisted of two types of eligible customers:

1. Customers who had not yet met or exceeded the Duke Energy bulb (CFL or LED) limit of 15. These customers had the option to choose kits in quantities of 3, 6, 8, 12, and 15 bulbs. Available order quantities presented were dependent on past campaign participation (i.e., coupons, Business Reply Cards ("BRCs") and other Company programs offering lighting).
2. Customers who had met or exceeded the 15-bulb limit (CFL or LED) but 5 years have passed since their shipment dates. Depending upon past order quantities, these customers had the option to order bulbs in quantities of 6 or 12.

Customers had the flexibility to order and track their shipments through four separate channels:

- 1) Telephone: Customers could call a toll-free number to access the Interactive Voice Response ("IVR") system, which provided prompts to facilitate the ordering process. The IVR was designed to handle requests for both English- and Spanish-speaking customers. Customers could easily validate their accounts, determine their eligibility and order their LEDs over the phone.
- 2) The Program's Web Site: Customers could go online to order LEDs, check their order status, see eligibility requirements and view frequently asked questions.
- 3) My Account: Once enrolled and authenticated in My Account, eligible customers had the ability to order LEDs, check their order status and view frequently asked questions.
- 4) Duke Energy Mobile App: Once a customer downloaded and authenticated their account on the mobile app, if eligible, the customer would see a "card" within the app offering the program. Like the other channels, customers had the ability to track order status and view FAQs.

### **Specialty Lighting**

The Duke Energy Savings Store ("Store") is an extension of the on-demand ordering platform enabling eligible customers to purchase specialty bulbs and have them shipped directly to their homes. The Store launched on April 26, 2013, and offers a variety of Light Emitting Diodes lamps ("LEDs") including reflectors, globes, candelabra, 3-way, and dimmable bulbs. The incentive levels vary by bulb type, and the customer pays the difference. Various shipping promotions are run throughout the year, ranging from free to a reduced flat rate price.

The maximum number of incented products are listed below with the associated limits (per account)

- LED lighting, 36 per account.
  - LED lighting product offering is comprised of - reflectors, globes, candelabra, 3-way, dimmable bulbs. The incentive levels vary by bulb type
- Smart thermostats, 2 total
- Water measures, 3 total
- Smart Strips, 4 total
- LED fixtures (direct wires, portable, & outdoor photocell), limit 8 total
- Small appliance, dehumidifiers & air purifiers, limit 2 each total

Customers may choose to order additional products without the Company's incentive.

The Store is managed by a third-party vendor, Energy Federation Inc. ("EFI"). EFI is responsible for maintaining the Store website, fulfilling all customer purchases, supporting the program call center, and recommending products. The store's landing page provided information about the store, product offerings, highlights promotions, account information and order history. Support features include a toll-free number, chat, package tracking and frequently asked questions.

Educational information is available to help customers with their purchase decisions. This information includes videos and documents that speaks to how the customer can reduce their energy usage while maintaining comfortable atmosphere within their home.

Product pages include application photos, product images, product specifications, purchase limits, and program pricing. Customers may place items in their shopping carts to purchase later. Customers can pay for their purchases with a credit card or by check.

### **Retail Lighting**

The Retail Lighting Program's primary objective is the reduction of electric energy consumption and peak demand through increased awareness and adoption of energy-efficient lighting technologies. The program partners with retailers and manufacturers across North and South Carolina to provide price markdowns on customer purchases of efficient lighting. The product mix includes Energy Star-rated standard, reflector, and specialty LEDs and fixtures. Participating retailers include a variety of store types, including Big Box, DIY, and discount stores.

The program promotes customer awareness and the purchase of program-discounted products through a range of marketing and outreach strategies, including in-store collateral and events, bill inserts, direct mail and email marketing, mass media advertising, online advertising, and community events. The program also provides training to store staff to enable better customer education at the point of purchase. Ensuring customers are purchasing the right bulb for the application through proper customer education is imperative to obtain high satisfaction with lighting products and subsequent purchases.

### **Water Measures**

The Save Energy and Water Kit Program ("SEWK") launched in 2014. The Program is designed to increase the energy efficiency of residential customers by offering customers energy efficient water fixtures and insulating pipe tape for use within their homes.

The SEWK program is offered through a selective eligibility process, enabling eligible customers to request a kit and have it shipped directly to their homes. Customers owning and living in a single-family home with an electric water heater and who have not received similar measures through another Company-offered energy efficiency program are eligible for the program. Kits are available in two sizes for



homes with one or more full bathrooms and contain varying quantities of shower heads, bathroom aerators, a kitchen aerator and insulating pipe tape. Program participants are eligible for one kit shipped free of charge to their homes. Also, customers are able to upgrade the showerhead(s) in the kit from a standard showerhead to either a wide pattern or wand showerhead at low cost.

Customers are pre-screened based on the eligibility requirements. Marketing channels include both a direct mail business reply card ("BRC") and direct email. Customers receiving the BRC may choose to return the BRC, navigate to a redemption website listed on the card, or call a toll-free number to take advantage of the offer. Customers receiving a direct email simply click on a redemption link to redeem the offer online. Upon receiving the order from the customer through one of the methods above, EFI ships the kit to the customer. Due to the unique eligibility requirements of this program, BRCs and direct email are the only two methods being used to solicit customers for participation.

### High Efficiency Pool Pumps

The High Efficiency Pool Pumps measure ("Pool Energy Efficiency Program") is designed to encourage the purchase and installation of energy efficient variable speed pool pumps for residential in-ground swimming pools. Eligible customers receive an incentive of \$300 for the replacement of an eligible single-speed pool pump with a new Energy Star-certified variable speed pump. New swimming pool construction is also eligible for the rebate. The program is marketed through a network of participating contractors ("Trade Allies") that interface directly with the customer, as well as through various marketing channels such as direct mail, email, company website, bill inserts and other customer communications. Eligible customers include single-family, owner-occupied residential customers with an in-ground pool in the Duke Energy Carolinas service territory. Builders of single-family residences are eligible for new residence construction that includes an in-ground swimming pool. In late 2017, this measure was moved to the Residential Smart Saver® Energy Efficiency Program (previously known as HVAC EE).

### High Efficiency Heat Pump Water Heater

The high efficiency heat pump water heater measure is designed to encourage the installation and adoption of heat pump water heaters. Eligible customers receive an incentive of \$350 for the replacement of an existing electric water heater with an Energy Star-certified heat pump water heater having an Energy Factor ("EF") rating of 2.0 or higher. The program is marketed through a network of participating contractors ("Trade Allies") that interface directly with the customer, as well as through various marketing channels such as direct mail, email, company website, bill inserts and other customer communications. Eligible customers include single-family, owner-occupied residential customers with electric water heating in the Duke Energy Carolinas service territory. Builders of single-family residences that include an eligible heat pump water heater are also eligible for the rebate. In late 2017, this measure was moved to the Residential Smart Saver® Energy Efficiency Program (previously known as HVAC EE).

### Audience

Customers who meet the Program eligibility requirements.

### B & C. Impacts, Participants and Expenses

Energy Efficient Appliances and Devices<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$28.1</b>	<b>\$60.9</b>	<b>217%</b>
<b>Program Cost</b>	<b>\$9.1</b>	<b>\$22.1</b>	<b>243%</b>
<b>MW</b>	<b>11.2</b>	<b>15.8</b>	<b>140%</b>
<b>MWH</b>	<b>48,945.9</b>	<b>111,202.9</b>	<b>227%</b>
<b>Units</b>	<b>1,712,564</b>	<b>5,311,571</b>	<b>310%</b>

1) Values are reflected at the system level.

## **D. Qualitative Analysis**

### **Free LED Program**

#### **Highlights**

Prior to the program discontinuing on 6/30, results were strong in 2020. Overall, over 205,000 orders were placed accounting for 2.6 million bulbs.

From an order channel perspective, the IVR intercept was the ordering channel that accounted for the most orders (50%). This was followed by the My Account authenticated portal accounting for 24% of orders in 2020 the Duke Energy public website with 21% of orders while the Duke Energy Mobile App rounded out the rest of the order channel splits accounting for 5% of orders.

#### **Potential Changes**

As planned, The Free LED program discontinued in Duke Energy Carolinas on June 30, 2020, as a result of potential efficiency standards for general service bulbs that may be imposed as a part of the Energy Independence and Security Act (EISA).

### **Specialty Lighting**

#### **Highlights**

The Online Savings Store provides an ecommerce platform that allows customers to purchase a variety of energy efficient products, including LEDs, smart thermostats, smart strips and more, at any time. In 2020 the program delivered 169,789, bulbs, 11,976 smart thermostats, 4,389 smart strips, 194 water products, 329 LED fixtures, and 8 dehumidifiers to customers.

#### **Issues**

Educating and bringing awareness to the variety of products in the Store to eligible customers is the program's primary issue.

#### **Potential Changes**

The program continues to explore opportunity to facilitate ease of use shopping online as well as additional product offerings for consideration to enhance energy savings.

### **Retail Lighting**

#### **Highlights**

In 2020, the program moved a total of 2,073,979 measures, including 1,578,284 LEDs and 495,695 fixtures into customers' homes.

The DEC Energy Efficiency Program had 12 lighting retail channels actively participating in 2020. While the top three retail channels account for 77% of the program sales, all retail channels are important in that they allow access to the program for a widely diverse and geographically spread population of DEC customers. Locations are selected to ensure that the Program reaches 90% of customers within 30 miles of a participating retail location.

The Program operated efficiently with 81.9% of overall Program costs going directly to customers in the form of incentives. Most of the remaining Program costs (17.7%) were spent on implementation and administration of the Program. The remainder of costs, less than 1%, were spent on marketing and labor.

#### **Issues**

Despite continued success in 2020, potential effects of the COVID-19 pandemic remain on the program's radar. Based on experiences in 2020, impacts included and could continue to include:

- temporary store closures or limited hours impacting opportunity for the program.
- depending on COVID conditions, in-field store visits (training of store staff, proper placement of POP) may be paused to limit exposure of field team in stores for not only their safety, but that of store patrons and staff.
- Continued suspension of in-store and community events promoting the program and its product offering.

The Program continues to monitor this closely while adhering to Duke Energy Customer Engagement Safety Protocols.

### **Potential Changes**

The Program will continue to evaluate the market and adjust products and incentive levels as necessary, focusing on specialty applications and strategically targeting underserved customers through select channels and events.

## **Save Energy and Water Kit Program**

### **Highlights**

In 2020, the program distributed over 439,000 water measures in over 46,000 kits to Duke Energy customers in the Carolinas. The kits delivered approximately 93,078 bathroom aerators, 46,537 kitchen aerators, 66,824 showerheads and 232,685 feet of pipe insulation. Of customers that redeemed the offer, 18% chose to upgrade their kit to either a wide format or wand showerhead.

### **Issues**

The program continues to review customer satisfaction surveys to identify opportunities for improvement with installation rates and overall customer satisfaction.

### **Potential Changes**

The program will be enhancing the standard showerhead included in the kit in effort to increase installation rates and improve customer satisfaction in 2021.

## **High Efficiency Pool Pumps**

### **Highlights**

The Company partnered with several wholesale distributors across North and South Carolina to serve as distribution channels for program awareness and to develop the Trade Ally Network. Trade Allies are important to the program's success because they interface with the customer during the decision-making process. Several training classes were conducted throughout the jurisdiction to continue educating the trade allies on the advanced technology variable speed as well as on how to sell the technology to the end user.

### **Issues**

Customer buy-in and the Trade Ally network are vital to the success of the program. Educating contractors on emerging technologies and the value the technologies provide customers is critical in growing the trade ally network and their willingness to promote the program. Additionally, many distributors are requesting point-of-sale rebates as they do not want to deal with submitting rebates or

handling the additional paper work requirements for the Program. The Company is currently working to determine if a technology can be put in place to accommodate distributor needs and boost participation.

## **High Efficiency Heat Pump Water Heater**

### **Highlights**

The Company has partnered with manufacturers and national retailers such as General Electric and Lowes to increase program awareness and maximize in store purchases. The program continued recruiting plumbing contractors and currently registered HVAC companies to increase coverage across the jurisdictions and maximize participation. The Program conducted training classes throughout the jurisdiction to educate the Trade Allies on the advanced technology offers for reducing energy consumption as well as on how to sell the technology to the end user.

### **Issues**

Educating and bringing awareness of the program to both customers and potential contractors has been challenging. Educating contractors has been addressed through additional Trade Ally marketing, recruitment and training but remains slow due to the re-emerging technology of heat pump water heaters and their willingness to adopt more technical services. Customer awareness is being addressed through program design and marketing tactics but will be primarily targeted as a joint effort with manufactures and national retailers. Their willingness to co-brand and the frequency of campaigns will be critical in reaching our customer base.

## **E. Marketing Strategy**

### **Free LED Program**

The overall strategy of the program was to reach residential customers who have not adopted LED lighting. The Company tried to educate customers on the benefits of LEDs while addressing barriers for customers who had not participated in the program.

From an outreach standpoint prior to the program's end, it relied on its My Account intercept, a pop up that launched as a customer logged into the My Account authenticated portal to pay their bill or view account information, to generate interest in the program. A customer could click "continue" to move to the Free LED ordering page. In 2020, approximately 24% of orders came as a result of this intercept. In addition to the My Account intercept, the program leveraged its IVR Intercept that presented when a customer calls into the Duke Energy customer service line. This channel accounted for 50% of 2020 orders.

In addition to the intercepts, the program also solicited customers via emails. Such pieces usually targeted New Customers (typically yielding an 18% take rate) and customers who became re-eligible for the Free lighting program after 5 years passed since their Free CFL order (typically yielding a 16% take rate).

### **Specialty Lighting**

Since the launch of the Store, the marketing efforts include the following:

- bill messages
- bill inserts
- email campaigns
- direct mail
- and other digital media channels

Awareness and education will continue to be a focus in collateral messages to eligible customers, as well as highlighting great pricing and other promotional offerings such as free shipping.

## **Retail Lighting**

The program's marketing efforts for 2020 include the following:

- Point of Purchase materials at participating retailer locations
- Duke Energy Program website
- General Awareness Email Campaigns
- Cross-Promotional Opportunities in via internal marketing channels (Other Programs, Residential Newsletters)

In general, these marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation.

As a result of the COVID-19 pandemic, the program has suspended its normal advertised events at key retailers as well as community outreach events (national night out, cultural events, etc.) until further notice. This decision will be evaluated on a regular basis with activities only resuming when appropriate conditions permit.

## **Save Energy and Water Kit Program**

The overall strategy of the program is to reach residential customers who have not adopted low flow water devices.

Both direct mail marketing in the form of BRCs and direct email are the current marketing channels being used by this program in the Carolinas.

## **High Efficiency Pool Pumps**

The Company implemented several customer marketing campaigns in 2017 which leveraged channels such as email, paid search, display ads, direct mail and social media to build awareness of the program. Other channels such as co-branded retail displays with selected distributors created awareness of the program. The program's messaging was built around the benefits of the product including payback, annual savings and cleaner pools.

## **High Energy Efficiency Heat Pump Water Heater**

The Company implemented several customer marketing campaigns in 2017 which leveraged channels such as bill inserts, paid search, and display ads to build awareness of the program. Other channels such as co-branded retail displays with selected manufacturers and national retailers created awareness for the program.

## **F. Evaluation, Measurement and Verification**

### **Residential Lighting**

No additional EM&V activities are planned for the Free LED Program due to future sunseting of the program.

Future evaluations for the DEC Online Saving/Marketplace Program and the DEC Retail Lighting Program are tentatively scheduled for a final report date in the fourth quarter of 2021.

### **Heat Pump Water Heaters/Pool Pump**

The evaluation for Heat Pump Water Heater and Variable Speed Pool Pump measures are scheduled for evaluation work to begin in mid-year 2022, with a completion date in mid-2023. The timeframe for a final report has been pushed out one year to allow additional participation in the referral component of the program.

### **Save Energy & Water**

The final evaluation was delivered in 2020 and a revised report to account for corrections to the showerheads was presented at the October 2020 Collaborative.

The next evaluation is scheduled to begin activities in mid-2021, with a final report scheduled for mid-2022.

## G. Appendix

### Free LED Program– Direct Mail New Customer Letter:



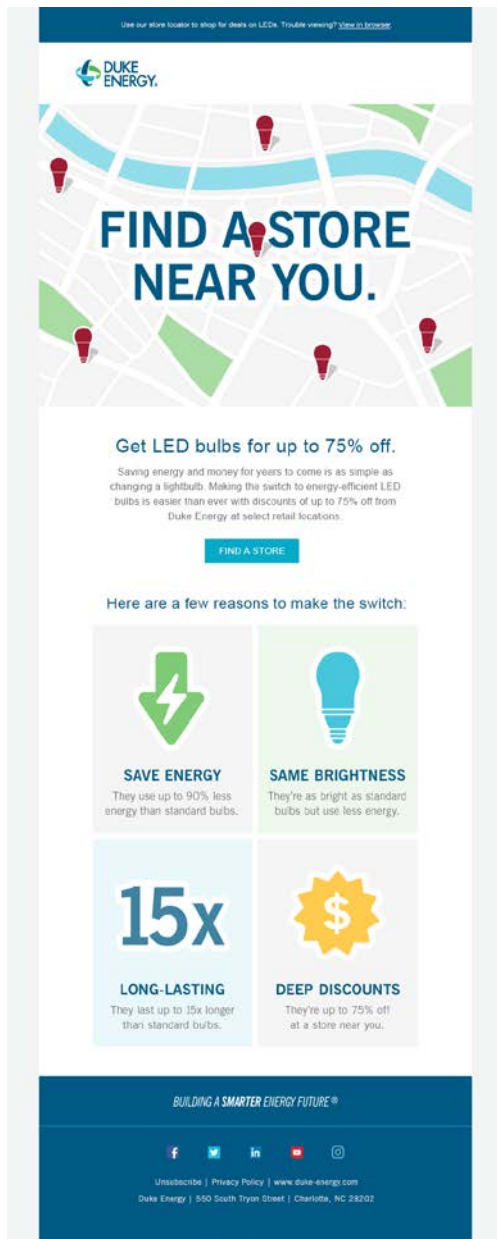
### Free LED Direct Mail Campaign:



### Free LED Program – Email Campaign:

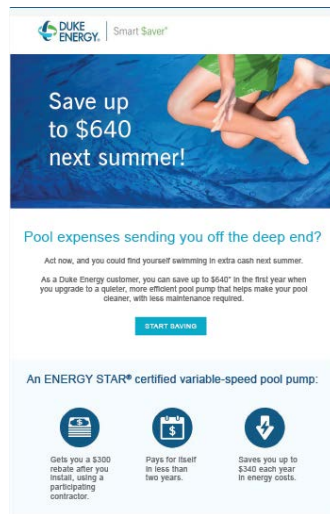


Retail Lighting General Awareness Email:





## High Efficiency Pool Pump Digital Ad



**DUKE ENERGY | Smart Saver®**

Save up to \$640 next summer!

Pool expenses sending you off the deep end?

Act now, and you could find yourself swimming in extra cash next summer.

As a Duke Energy customer, you can save up to \$640\* in the first year when you upgrade to a quieter, more efficient pool pump that helps make your pool cleaner, with less maintenance required.

**START SAVING**

An ENERGY STAR® certified variable-speed pool pump:

- Gets you a \$300 rebate after you install, using a participating contractor.
- Pays for itself in less than two years.
- Saves you up to \$340 each year in energy costs.

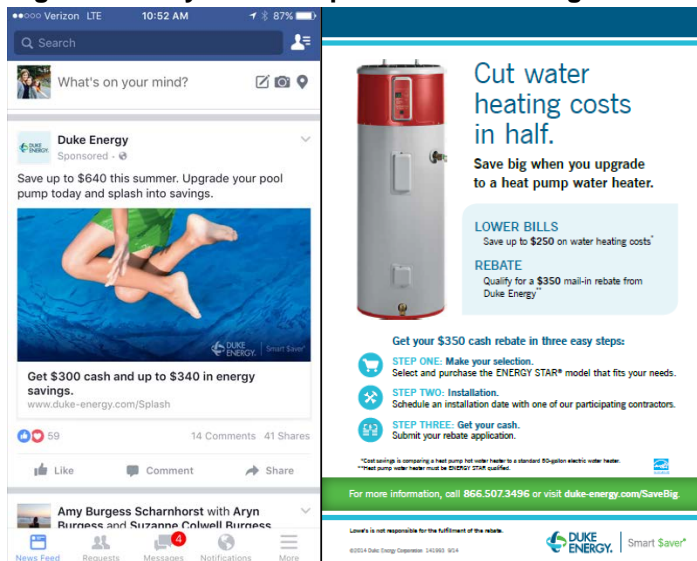
## High Efficiency Heat Pump Water Heater National Retailer Display



Enjoy easy summertime savings.

Want to save up to \$640 next summer? We can help.

## High Efficiency Pool Pump Facebook Posting




Verizon LTE 10:52 AM 87%

Search

What's on your mind?

**Duke Energy** Sponsored

Save up to \$640 this summer. Upgrade your pool pump today and splash into savings.



**Get \$300 cash and up to \$340 in energy savings.**  
[www.duke-energy.com/Splash](http://www.duke-energy.com/Splash)

59 14 Comments 41 Shares

Like Comment Share

**Amy Burgess Scharnhorst with Aryn Burness and Suzanne Colwell Burness**

News Feed Requests Messages Notifications More

**Cut water heating costs in half.**

Save big when you upgrade to a heat pump water heater.

**LOWER BILLS**  
Save up to \$250 on water heating costs\*

**REBATE**  
Qualify for a \$350 mail-in rebate from Duke Energy\*\*

**Get your \$350 cash rebate in three easy steps:**

- STEP ONE: Make your selection.**  
Select and purchase the ENERGY STAR® model that fits your needs.
- STEP TWO: Installation.**  
Schedule an installation date with one of our participating contractors.
- STEP THREE: Get your cash.**  
Submit your rebate application.

\*Cost savings is comparing a heat pump hot water heater to a standard 50-gallon electric water heater.  
\*\*Heat pump water heater must be ENERGY STAR qualified.

For more information, call 866.507.3496 or visit [duke-energy.com/SaveBig](http://duke-energy.com/SaveBig)

Lineo's is not responsible for the fulfillment of the rebate.

**DUKE ENERGY | Smart Saver®**

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## High Efficiency Heat Pump Water Heater Digital Media

Water heater over  
10 years old?

**Don't wait until it fails.**

Get \$350 when you upgrade  
your water heater.

[Find a contractor ↗](#)



## A. Description

The Energy Efficiency Education Program ("Program") is available to students in grades K-12 enrolled in public and private schools in the Duke Energy Carolinas (the "Company" or "DEC") service territory. The current curriculum administered by The National Theatre for Children ("NTC") provides performances in elementary, middle and high schools.

The Program provides principals and teachers with an innovative curriculum to educate students about energy, resources, how energy and resources are related, ways energy is wasted, and how to be more energy efficient. The centerpiece of the curriculum is a live theatrical production focused on concepts such as energy, renewable fuels and energy efficiency and performed by two professional actors. Teachers receive supportive educational material for classroom and student take-home assignments. The workbooks, assignments and activities meet state curriculum requirements.

School principals are the main point of contact for scheduling their school's performance at their convenience. Two weeks prior to the performance, all materials are delivered to the principal's attention for classroom and student distribution. Materials include school posters, teacher guides, and classroom and family activity books.

Students are encouraged to complete a request form with their families (found in their classroom and family activity book, as well as online) to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy consumption. It is available at no cost to eligible Duke Energy customer households at participating schools.

In 2020, many of the aspects of the Energy Efficiency Education program were impacted as a result of the COVID-19 pandemic. All in-school performances ceased as of March 13, 2020. This resulted in the program pivoting and offering livestream performances so school and students could still participate. More details are provided below in section D.

## Audience

Eligible participants include the Company's residential customers who reside in households served by Duke Energy Carolinas with school-age children enrolled in public and private schools.

## B & C. Impacts, Participants and Expenses

Energy Efficiency Education<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$3.3	\$1.3	40%
Program Cost	\$2.6	\$1.1	42%
MW	1.7	0.4	26%
MWH	7,034.8	3,380.3	48%
Units	32,950	12,479	38%

1) Values are reflected at the system level.

## D. Qualitative Analysis

### Highlights

The Company is supporting arts and theatre in schools while providing an important message about energy efficiency for students through an innovative delivery channel. Enhancing the message with a live theatrical production captivates the students' attention and reinforces the classroom curriculum materials provided.

The spring semester of the 2019-2020 school year brought on unprecedented challenges related to the COVID-19 pandemic forcing schools to close and revert to virtual learning. As a result, live performances ceased on March 13, 2020. Overall, 29 scheduled schools representing close to 9,000 children had to have their performance cancelled. This also impacted the ability to the program administrator to continue outreach to additional schools that may have been interested in having a performance in the Spring months. Despite this, the program provided these schools with an educational video as well as the educational materials that could be accessed via the program website.

After the conclusion of the spring semester, the program began to develop a plan to continue to offer these educational performances via online livestream for all three levels of schooling in the Fall semester. Given the uncertainty around whether or not a school is remote learning or using a hybrid plan, the program would be able to offer time slots to schools to view a live host providing educational information and narrating between four different segments of the theatrical performance that's normally given in schools by professional acting troupes.

Consistent with past years, each performance had content that was appropriate with its educational level. Elementary schools were able to view livestream performances of "Space Station Conservation"; "The Conservation Crew" was made available to Middle schools and High Schools were able to watch "Your Plant, Your Future". Students and teachers also had access to a Q&A with the host and an e-learning package that includes games, quizzes and lesson plans for the class that reinforce concepts from the show.

Overall in 2020, a total of 428 schools participated in the program in the Company's DEC service territory, reaching approximately 134,576 students and spurring the distribution of 12,479 kits.

Once an eligible customer submits a completed energy efficiency, the Energy Efficiency Starter Kit is shipped for delivery within two to four weeks.

In order to help encourage student participation, the program vendor, The National Theatre for Children, would reward schools \$250 for every 100 Energy Efficient kit requests. Additionally, various rewards for teachers and participating families were offered to encourage additional kit requests.

## **Updates**

The Company continues to enhance the Program by the following:

- Introducing new productions each school year to refresh and refocus the materials and scripts to keep participating schools engaged.
- Promoting the program through social media to encourage awareness, recognition and participation.
- Partnering with Duke Energy Account and District Managers to leverage existing relationships in the community to develop positive media stories while encouraging kit sign ups.
- Offering teacher satisfaction survey evaluations after the performances for all school levels. Survey data from January through December indicated 87% of teachers surveyed had an overall satisfaction of rating of at least 8 on a scale of 1 to 10.
- Enhancing the offering by providing educational materials for all student households, but particularly those that have already received the current Energy Efficiency Starter Kit as well as non-Duke Energy customer student households; both of which are ineligible for an EE Starter Kit.
- Inclusion of the Kilowatt Krush mobile gaming application that will allow users to learn about smart energy use and conservation through an engaging arcade of action-packed, energy themed games. Students build and customize virtual houses in the neighborhood of their choice while learning about energy efficiency and safety education.

## **E. Marketing Strategy**

The National Theatre for Children is responsible for all marketing campaigns and outreach. The marketing channels may include but are not limited to the following:

- Direct mail (letters to school administrators)
- Email
- In-Person
- Program Website
- Events or assemblies
- Printed materials for classrooms
- Social media promotions

These marketing efforts engage students and their families in energy conservation behavior and provide energy saving opportunities through the Energy Efficiency Starter kits.

## **F. Evaluation, Measurement and Verification**

An evaluation report covering an evaluation period of August 2017 through July 2018 was completed in 2019. Evaluation work is currently underway for the period covering August 2019 – July 2020. The final report is scheduled to be completed in the third quarter of 2021.

## A. Description

The Home Energy House Call Program ("Program") is offered under the Energy Assessment Program. Duke Energy Carolinas, LLC (the "Company") partners with several key vendors to administer the Program.

The Program provides a free in-home assessment performed by a Building Performance Institute ("BPI") certified energy specialist and designed to help customers reduce energy usage and save money. The BPI-certified energy specialist completes a 60- to 90-minute walk through assessment of a customer's home and analyzes energy usage to identify energy savings opportunities. The energy specialist discusses behavioral and equipment modifications that can save energy and money with the customer. The customer also receives a customized report that identifies actions the customer can take to increase the home's efficiency. Examples of recommendations might include the following:

- Turning off vampire load equipment when not in use.
- Turning off lights when not in the room.
- Using energy efficient lighting.
- Using a programmable thermostat to better manage heating and cooling usage.
- Replacing older equipment.
- Adding insulation and sealing the home.

In addition to a customized report, customers receive an energy efficiency starter kit with a variety of measures that can be directly installed by the energy specialist. The kit includes measures such as energy efficiency lighting, a low-flow shower head, low flow faucet aerators, outlet/switch gaskets, weather stripping, and an energy saving tips booklet.

Additionally, bath aerators and pipe wrap are also available for free at the time of the assessment. New discounted measures may be purchased and installed during the assessment including LED specialty lighting (i.e. Globes, Candelabra and Recessed), Hand-held Showerhead, Smart Thermostats and a Blower Door test.

## Audience

Eligible Program participants are the Company's residential customers that own a single-family residence with at least four months of billing history and central air, electric heat or an electric water heater.

## B & C. Impacts, Participants and Expenses

Energy Assessments<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$3.6</b>	<b>\$4.6</b>	<b>128%</b>
<b>Program Cost</b>	<b>\$2.8</b>	<b>\$3.4</b>	<b>120%</b>
<b>MW</b>	<b>0.7</b>	<b>0.9</b>	<b>130%</b>
<b>MWH</b>	<b>6,119.6</b>	<b>7,891.6</b>	<b>129%</b>
<b>Units</b>	<b>26,118</b>	<b>64,125</b>	<b>246%</b>

1) Values are reflected at the system level.

2) Units represent number of kits, including additional LEDs.

## **D. Qualitative Analysis**

### **Highlights**

The Company continues with a multi-channel approach which includes Duke Energy website pages, website banners, online services banner, paid search campaigns, Facebook, email, bill inserts, bill messages, direct mail, and customer segmentation to reach customers with a high propensity to participate. Examples of online, bill inserts and direct mail promotions are available in the appendix. Program staff explores other channels for marketing campaigns to reach the target audience and maximize both program performance as well as customer experience.

Vendors, partners and the team at Duke Energy collaborate regarding marketing initiatives, future scheduling, availability, routing, targeting, backlog, etc. to drive efficient operations as well as customer satisfaction.

Through December 2020, the program conducted 10,018 assessments and installed 30,972 additional LEDs. The program additionally installed 10,125 feet of pipe insulation and 2,538 additional bathroom aerators. Beginning in August 2020, the program began offering new discounted measures. The program installed 2,807 specialty LED globes, 2,842 recessed bulbs, 4,548 candelabra LEDs and 194 Hand-held Showerheads. Beginning in November 2020, 81 Smart Thermostats were installed to eligible customers. The program continues to focus on maximizing the number of measures installed as well as cross-promoting other Duke Energy programs and offerings.

Enhancements to the program in 2020 include a continuing focus on cross promotion of other programs and integration of in-field referrals for FindItDuke.

### **Potential Changes**

Some program enhancements to increase the effectiveness of the Program being considered include the following:

- Continuing to optimize the online scheduling tool to enhance the customer experience
- Including townhomes/condos for audit eligibility
- Implementing post audit follow up with reminders of recommendations/referrals.

### **Issues**

The program was shut down in mid-March through late June due to the Covid pandemic in 2020. Duke worked collaboratively with the vendor to build safety protocols, procedures and use of Personal Protective Equipment (PPE) into the assessment process for the relaunch in June.

Additionally, the program was shut down again during the holidays (December) to limit risks for customers and the vendor during the high Covid transmission period which impacted the overall performance of the program.

Also, the program delayed the training and launch of the Blower Door measure in 2020, due to the Covid pandemic and additional time required in the home.

The program continues to coordinate closely with the vendor to monitor incoming demand, to balance marketing and to ensure adequate appointment slots are available

## **E. Marketing Strategy**

Program participation continues to be driven through a multichannel approach including targeted mailings to pre-qualified residential customers, bill inserts, online promotions and online video. For those who elect to receive offers electronically, email marketing continues to be used to supplement direct mail. The Program management team continues to explore additional channels to drive awareness such as social,

event marketing and other cross-promotional opportunities. The creative team continues to drive engagement and interest in the program based on online survey results and enrollment. In between larger initiatives, such as bill inserts, the program utilizes direct mail which can easily be modified based on demand. Core messaging remains simple and focused on key benefits—a free energy assessment from Duke Energy can help save energy and money while also increasing comfort and it only takes three easy steps (You Call, We Come Over, You Save).

Home Energy House Call program information and an online assessment request form are available at [www.duke-energy.com](http://www.duke-energy.com).

#### **F. Evaluation, Measurement and Verification**

To accommodate the additional measures now included in the energy assessment program and to work around the program suspension due to COVID, the evaluation timeframe has been pushed back to cover the period Sept 2020 – Aug 2021. The activities will begin in earnest in Fall 2021 with a final report scheduled for First Quarter 2023.



## A. Description

The My Home Energy Report ("MyHER" or the "Program") is a periodic usage report that compares a customer's energy use to similar residences in the same geographical area based upon the age, size and heating source of the home. The report includes recommendations to encourage energy saving behaviors. Customers with email addresses on file receive an electronic version of their reports monthly.

Customers receive reports up to 12 times per year via paper and electronic delivery. (Delivery may be interrupted during the off-peak energy usage months in the fall and spring.) The report delivers energy savings by encouraging customers to alter their energy use. Customer's usage is compared to the average homes (top 50 percent) in their area as well as the efficient homes (top 25 percent). It also suggests energy efficiency improvements, given the usage profile for that home. In addition, the report recommends measure-specific offers, rebates or audit follow-ups from the Company's other programs, based on the customer's energy profile. As of December 31, 2020, over 1.19 million single-family DEC customers and over 167 thousand multi-family DEC customers receive the MyHER report.

The MyHER interactive online portal allows customers to learn more about their energy use and about opportunities to reduce their usage. Customers can set goals, track their progress, and receive more targeted tips. As of December 31, 2020, over 120 thousand single-family customers and over 15 thousand multi-family customers were enrolled on the portal.

## Audience

Target customers reside in individually metered, single-family and multi-family residences with active accounts and 13 months of concurrent service from Duke Energy Carolinas, LLC (the "Company"). Single-family residences receive up to 8 printed reports and, if they have an email address on file, 12 electronic reports. Multi-family residences with registered email addresses with the Company receive up to 4 printed reports and 8 electronic reports. Multi-family residences without registered email addresses with the Company receive up to 6 printed reports a year with a strong call to action to provide their email addresses.

## B & C. Impacts, Participants and Expenses

My Home Energy Report<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$20.7</b>	<b>\$23.9</b>	<b>115%</b>
<b>Program Cost</b>	<b>\$11.6</b>	<b>\$12.7</b>	<b>109%</b>
<b>MW<sup>2</sup></b>	<b>77.7</b>	<b>92.4</b>	<b>119%</b>
<b>MWH<sup>2</sup></b>	<b>306,337.9</b>	<b>332,105.4</b>	<b>108%</b>
<b>Units<sup>3</sup></b>	<b>1,355,300</b>	<b>1,358,892</b>	<b>100%</b>

1) Values are reflected at the system level.

2) Values represent the annual MW and MWH savings associated with the December 2020 month end participation.

3) At month-end December 2020, single-family participation was 1,191,807, while multifamily participation was 167,085

## D. Qualitative Analysis

As customers receive subsequent reports and learn more about their specific energy use and how they compare to their peer group, their engagement increases. The report then provides tools in the form of targeted energy efficiency tips with actionable ideas to become more efficient. Program participants are encouraged to contact the Company with their questions, comments and report corrections. Report corrections continue to generate the largest number of inquiries. Customers wishing to be removed from

the Program represent 0.03% of single-family Program participants and .03% of multi-family Program participants.

### **Highlights**

In 2020, the program continued the Pilot of new AMI usage charts on the eHERs which show customers the difference in average weekly usage by hour from one month to the next. Feedback continues to be positive.

### **E. Marketing Strategy**

The Program is marketed on the reports themselves by referring customers to the program website for additional information, Frequently Asked Questions ("FAQs") and contact resources. The MyHER Interactive portal is marketed by email campaigns as well as in the printed report.

In 2020, the program continued its email and on-report marketing campaigns to further awareness of the interactive portal. These campaigns resulted in an increase of over 26 thousand customers enrolling in the interactive portal.

### **F. Evaluation, Measurement and Verification**

The process and impact evaluation report, combined with DEP, was completed and presented to the Carolinas Collaborative in 2019.

An evaluation covering the period Jan 2020 – Dec 2020 will begin in Q1-2021 and will be completed in Q4-2021.

## A. Description

The Residential – Smart Saver® Energy Efficiency Program (“Program”) offers measures that allow eligible Duke Energy Carolinas, LLC (the “Company”) customers to reduce energy consumption in the home. The Program provides incentives for the purchase and installation of eligible central air conditioner or heat pump replacements in addition to Wi-Fi enabled Smart Thermostats when installed and programmed at the time the heating ventilation and air conditioning (HVAC) system is installed. Program participants may also receive an incentive for attic insulation, air sealing, duct sealing, variable speed pool pumps, and heat pump water heaters.

Program staff is responsible for establishing relationships with HVAC and home performance contractors (“Trade Allies”) who interface directly with residential customers. These Trade Allies market and leverage the Program to assist with selling these products and services to customers. Once the Trade Ally has sold the service/product, they complete and submit incentive applications on behalf of the customer. An incentive is disbursed to the customer after the application has been approved and processed.

Duke Energy contracts with a third-party vendor for application processing, incentive payment disbursement, and Trade Ally and customer call processing.

## Audience

The Company’s residential customers that meet the eligibility requirements of the Program may participate.

## B & C. Impacts, Participants and Expenses

### HVAC Energy Efficiency<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$9.5</b>	<b>\$7.8</b>	<b>83%</b>
<b>Program Cost</b>	<b>\$7.7</b>	<b>\$7.6</b>	<b>99%</b>
<b>MW</b>	<b>2.5</b>	<b>2.2</b>	<b>89%</b>
<b>MWH</b>	<b>8,869.8</b>	<b>7,689.4</b>	<b>87%</b>
<b>Units</b>	<b>29,692</b>	<b>27,153</b>	<b>91%</b>

1) Values are reflected at the system level.

## D. Qualitative Analysis

### Highlights

The Company’s tiered incentive structure continues to receive a positive reaction from customers as well as Trade Allies. Reporting continued to show that the higher incentive amounts for greater SEER equipment has encouraged customers to install higher efficiency equipment as well as having it managed with newer thermostat technologies.

The Smart Saver ® incentive program has continued strong results during the second half of 2020. Duke Energy Carolinas participation was over 99% consistent when compared to the same 6-month time period in 2019 and YTD 2020 participation, was 28,145 as compared to 2019 annual participation of 26,626 for an approx. 5.7 % increase over last year.

The program will continue to emphasize best practices and to build support by offering additional training to the Trade Allies (i.e. EV Charging Install training, Social Media Marketing, etc.) and modifications to program requirements when needed.

The Midstream effort got off the ground in this year with participation from one pool pump distributor that serves throughout the Carolinas and Midwest areas. We have processed 38 pool pump midstream rebates since this channel became active in June.

Customer engagement continues to be a focus of the Program especially through the “Find It Duke referral platform that positions Duke Energy as a trusted advisor by providing free home improvement referrals through a premier network of qualified contractors who deliver exceptional customer service.

The Find it Duke referral channel continues to be successful despite an expected decrease in activity due to COVID-19 concerns during 2020. A 50+% decrease in referral generation during Q2, rebounded and continued an upward trend as we reopened marketing campaigns in Q3. The program generated 8,322 DEC customer referrals for 2020 as compared to 8762 in 2019. Overall, a slight decrease in referrals by 10% in 2020. Customers who responded to a survey to rate their experience provided an average contractor rating of 4.81 out of 5.0 stars during 2020.

## **Issues**

The buy-in and participation of the Trade Ally network is vital to the success of the Program. Trade Allies are important to the Program’s success because they interface with the customer during the decision-making event. Particularly, buy-in from Tree Service companies has been very difficult and as of Dec 2020, we have only limited coverage (5 companies). We will continue to build the network; however, the market uncertainty and COVID-related concerns remained the prevailing issue for 2020.

## **E. Marketing Strategy**

Promotion of the rebate Program is targeted to HVAC and home performance contractors as well as pool and plumbing contractors that install variable speed pumps and heat pump water heater technology.

Program information to educate customers about the Program and encourage participation and Trade Ally enrollment links are available on the Program’s website. Increasing the overall awareness of the Program and the participation of Trade Allies ensures more customers are considering the benefits of the Program at the time of purchase. Point of Sale marketing materials have been in place throughout the Carolinas in Lowe’s and Home Depot stores that allow customers to download coupons and take advantage of instant rebates at time of purchase. The Midstream channel has also been used to promote Pool Pump rebates through one national distributor along with local Pool Retailers throughout NC/SC.

Various customer marketing campaigns during the first half of 2020 were halted, again due to COVID concerns, but restarted in July and leveraged channels such as TV, radio, social media and email messaging in order to build awareness of the referral service throughout the second half of 2020. Other marketing efforts, such as paid search and co-branded special offer campaigns in October and November created awareness and drove referral volumes up for the channel.

## **F. Evaluation, Measurement and Verification**

No evaluation activities were completed in 2020. The evaluation for the HVAC measures is scheduled for evaluation work to begin in mid-year 2022, with a completion date in mid-2023. The timeframe for a final report has been pushed out one year to allow additional participation in the referral component of the program.

## G. Appendix

### Residential HVAC and Heat Pump Water Heater– Referral Special Offer Campaigns



**FIND it DUKE** | Backed by **DUKE ENERGY**

❄️ Find cooling.  
💰 Find savings.  
*Find It Duke.*

Enjoy **\$300 off** heating and cooling system upgrade.

Find It Duke wants to help you enjoy a more comfortable home. Get **\$300 off** when you upgrade to a 16 SEER or greater HVAC system. Plus, qualify to earn up to **\$450 in rebates** to help offset the cost of your system.

[GET OFFER](#)

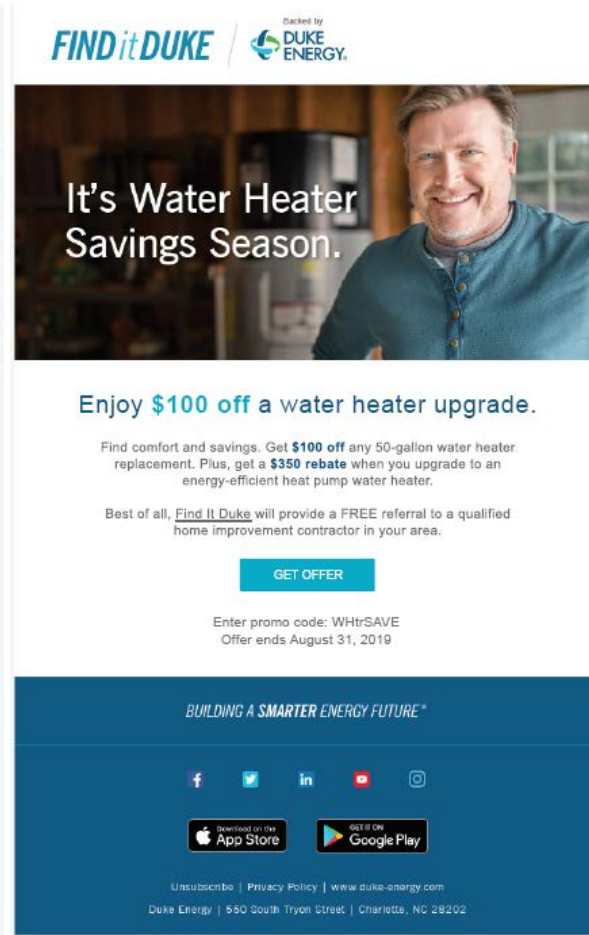
Enter promo code: HVAC16SEER  
Offer ends August 31, 2019

*BUILDING A SMARTER ENERGY FUTURE\**

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Unsubscribe | Privacy Policy | [www.duke-energy.com](http://www.duke-energy.com)  
Duke Energy | 550 South Tryon Street | Charlotte, NC 28202



**FIND it DUKE** | Backed by **DUKE ENERGY**

**It's Water Heater Savings Season.**

Enjoy **\$100 off** a water heater upgrade.

Find comfort and savings. Get **\$100 off** any 50-gallon water heater replacement. Plus, get a **\$350 rebate** when you upgrade to an energy-efficient heat pump water heater.

Best of all, Find It Duke will provide a FREE referral to a qualified home improvement contractor in your area.

[GET OFFER](#)

Enter promo code: WHtrSAVE  
Offer ends August 31, 2019

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Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

## Residential Pool Pump- Email Campaign

The graphic features the Duke Energy logo and 'Smart \$aver' tagline at the top. The main headline 'SAVE MONEY' has the 'O' replaced by a yellow pool ring. Below this, it promotes 'End-of-season savings on a new pool pump up to \$640.' and includes a paragraph about the time to upgrade and a \$300 rebate. A blue 'UPGRADE NOW' button is present. The section 'Why upgrade to a variable-speed pool pump?' lists three benefits with icons: saving energy costs, using less energy/noise, and requiring less maintenance. It also mentions a free referral to a contractor via FindItDuke.com. The footer includes social media icons, app store links, and a disclaimer.

**DUKE ENERGY** | Smart \$aver®

# SAVE MONEY

**End-of-season savings on a new pool pump up to \$640.**

The time to upgrade to a variable-speed pool pump is now, before pool season ends. You'll save with a \$300 Duke Energy rebate, enjoy up to \$340 in annual energy savings and help keep your pool running at peak efficiency. Don't wait.

[UPGRADE NOW](#)

**Why upgrade to a variable-speed pool pump?**

- Saves up to \$340/year in energy costs.
- Uses less energy and makes less noise.
- Requires less overall maintenance.

Start saving now. Visit [FindItDuke.com](#) for a FREE referral to a pool pump contractor.

**BUILDING A SMARTER ENERGY FUTURE\***

Unsubscribe | Privacy Policy | View In Browser | [duke-energy.com](#)

## HPWH Partnership - Email Campaign

The graphic has a green top section with a shower head icon spraying dollar signs. The headline '350 reasons to upgrade.' is prominent. The main offer is a '\$350 instant rebate on a new heat pump water heater.' It explains the benefits of energy efficiency and provides instructions on where to redeem the rebate (Lowe's or Home Depot) and the expiration date (Dec. 31, 2019). A blue 'CLICK FOR REBATE' button is included. The 'How does it work?' section outlines three steps: downloading a coupon, visiting a store, and redeeming the coupon. It also provides a phone number for more details. The footer includes the ENERGY STAR logo, a disclaimer about savings, and a note about the partnership.

# 350 reasons to upgrade.

**Receive a \$350 instant rebate on a new heat pump water heater.**

It's the perfect time to upgrade to a high-efficiency heat pump water heater. Enjoy lower water heating costs, lower monthly electric bills and the lasting benefits of energy efficiency – a combined savings of up to \$600 within the first year.

Visit your nearest Lowe's or Home Depot to choose your qualifying model and redeem your \$350 instant rebate. Hurry, offer expires Dec. 31, 2019.

[CLICK FOR REBATE](#)

**How does it work?**

- STEP 1**  
 [Download](#) your rebate coupon now.
- STEP 2**  
 Visit your nearest Lowe's or Home Depot store.
- STEP 3**  
 Redeem your digital coupon at checkout for an instant \$350 savings.

For additional details about this program, visit [dukeenergy.store](#) or call [866.785.6209](#).

Per ENERGY STAR®, annual savings based on usage of a household of four. Duke Energy residential customers only.

Home Depot and Lowe's are not responsible for fulfillment of rebate and may not combine with all Home Depot and Lowe's offers. See terms & conditions at [duke-energy.com/homeproducts](#).

## Social Ads



## Digital ads

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HOME & FAMILY

### Your Home



### 7 Ways to Save When You Go Green

We bring you up to date on the best eco-friendly practices

by Nissa Simon, AARP | Comments: 5



Also on AARP

Creative: HPWH



**A. Description**

The Multi-Family Energy Efficiency program ("Program") provides energy efficient lighting and water measures to reduce energy usage in eligible multi-family properties. The Program allows Duke Energy Carolinas, LLC (the "Company") to utilize an alternative delivery channel which targets multi-family apartment complexes. The measures are installed in permanent fixtures by Franklin Energy, the program administrator. Franklin Energy oversees all aspects of the Program including outreach, direct installations, and customer care.

The Program helps property managers save energy by offering energy efficient lighting and water products. The Program offers LED lighting measures including A-lines, globes, candelabras, recessed, and track bulbs, and energy efficient water measures such as bath and kitchen faucet aerators, water saving showerheads, and pipe wrap. Water measures are available to eligible customers with electric water heating. These measures assist with reducing maintenance costs while improving tenant satisfaction through lower energy bills.

The Program offers a service where Franklin Energy installs the lighting and water measures during scheduled visits. Crews carry tablets to keep track of which measures are installed in each apartment.

After installations are completed, Quality Assurance ("QA") inspections are conducted on 20 percent of properties that completed installations in each month. The QA inspections are conducted by an independent third party. Any QA adjustments are provided to the Company to update participation records.

**Audience**

The target audience is property managers who have properties served on individually metered residential rate schedules. To receive water measures, apartments must have electric water heating. Properties with CFL installations over 5 years old are eligible for all the new LEDs and water measures. Lighting measures are only installed in permanent lighting fixtures such as ceiling lights, recessed lighting, track lighting, ceiling fan lights, and bathroom vanity lighting.

**B & C. Impacts, Participants and Expenses**

Multi-Family Energy Efficiency<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$10.1</b>	<b>\$2.2</b>	<b>21%</b>
<b>Program Cost</b>	<b>\$3.6</b>	<b>\$1.6</b>	<b>45%</b>
<b>MW</b>	<b>2.1</b>	<b>0.5</b>	<b>24%</b>
<b>MWH</b>	<b>20,180.2</b>	<b>4,042.1</b>	<b>20%</b>
<b>Units</b>	<b>368,226</b>	<b>98,419</b>	<b>27%</b>

1) Values are reflected at the system level.

**D. Qualitative Analysis****Highlights**

Through March 2020, the Program completed installations at 54 properties., accounting for over 7,443 units. The Program installed 75,320 measures with lighting representing 76% of the measures and 23,099 water measures representing the remaining 24%. Of the lighting measures, the program installed over 39,000 A-lines, over 11,000 candelabras, over 16,000 globes, 3,000 recessed and 4,000 track LED bulbs. The water measures consisted of over 7,000 aerators, over 10,000 feet of pipe wrap and over 4,000 showerheads.

**Issues**



Due to the Covid pandemic and safety concerns for customers and employees, the program was suspended in March impacting the ability to achieve the program goals.

### **Potential Changes**

In early 2021, the Program will file a request to add 1.25 GPM showerheads and discounted smart thermostats to the program.

New technology enhancements are being implemented to increase the accuracy of recording the measures installed and the bulb wattages removed, to increase efficiencies with scheduling units, and to improve the tracking of new opportunities from both the direct installers and energy advisors.

The program will continue to implement new Covid safety protocols and processes in preparation for relaunch in 2021.

### **E. Marketing Strategy**

As program implementer, Franklin Energy is responsible for marketing and outreach to property managers in the Company's service territory. Marketing is primarily done through outbound appointment setting calls, industry trade events, and on-site visits to gauge initial interest in the program. The Program staff also utilizes local apartment association memberships to obtain access to contact information for local properties and attends association trade shows or events to promote the program.

A Multi-Family Energy Efficiency public website landing page is available for property managers to learn more about the Program. A program brochure and a frequently asked question sheet are available for download.

Other ways a property manager may learn more about this Program are through the MyDuke Portal, an online tool used to pay the utility bills of vacant units at their property. The MyDuke Portal presents a promo link that directs the user to the Program website for more information.

Once enrolled, Franklin Energy provides property managers with a variety of marketing tools to create awareness of the Program among their tenants. The tools include letters to each tenant informing them of energy efficient measures being installed and of when the installations are taking place. Tenants receive educational leave-behind brochures when the installation is complete. Feedback from both property managers and tenants is important for the Program's continued success. Property managers are provided with leave-behind materials about the program which also includes survey for them to complete and return. For tenants, the educational leave-behind brochure includes a satisfaction survey to return to Duke Energy. Online versions of both the Program Manager and Tenant surveys are also available.

After the installation, window clings are placed in strategic areas throughout the property, specifically in the common areas entry and on each residential building on site (to the extent applicable). Using the window cling ensures that the program and Duke Energy are recognized long after the installation has taken place.

## F. Evaluation, Measurement and Verification

The combined DEC/DEP EM&V evaluation was completed in April 2020, covering the period January 2017 - May 2018. The evaluation determined the net annual energy and demand associated with the program participants and found that reported gross savings were 15% higher than verified. The evaluation used a combination of surveys, on site data collection, a lighting logger study, and engineering analysis to determine the impacts for the program. The free ridership was estimated at 7% with very limited spillover, for an overall NTG of 93%.

## G. Appendix

### Program Brochure-

*Updated to add Commercial Offerings partnership and new water measures*

Multifamily Energy  
Efficiency Program



### Thank You for Participating in the Duke Energy Multifamily Energy Efficiency Program!

Together with your neighbors, you helped Duke Energy provide and install energy-saving products in your home. Doing so is good for the environment AND your power bill!

As a result of your participation, the average unit could see energy savings of around [\$\$\$] every year.\*

Our community could save [XX] kilowatt-hours annually, which is the environmental equivalent to planting [XX] trees or taking [XX] cars off the road!



Please take Duke Energy's survey by scanning this QR code:



\*Actual savings will vary by floor plan and usage.  
©2019 Duke Energy Corporation

## FAQ for Property Managers

### What does the install process look like?

On your scheduled installation days, our team will arrive at 8:45 a.m. to begin working by 9 a.m. A member of your staff will need to accompany our installers and handle keys throughout the installation process. The time spent in each unit varies depending on the layout and products being replaced. We will leave a flyer for each resident explaining what was installed and a survey providing an opportunity to give us feedback. It's that simple and that fast!

### How do we qualify?

Your property's electric utility must be Duke Energy to qualify. Additional qualifications depend on several factors such as metering, existing products, and method for water heating. To see which offerings your property qualifies for, you will need to schedule a complimentary energy assessment with one of our Energy Advisors by calling 888.297.1671 or emailing: [dukeenergymultifamilyep@franklinenergy.com](mailto:dukeenergymultifamilyep@franklinenergy.com)

### How much does it cost?

NOTHING! This program is part of many programs Duke Energy offers its customers from funds set aside to help reduce energy use. There are two parts to our program: residential (inside tenant units) and commercial (common areas). There are no limits on how many products we can install. Your Energy Advisor will go over your qualifications during the energy assessment.

### What safety precautions should we know before installation?

As we are going through the units, if there are any unsecured pets or unattended minors, we will not be able to enter to perform the installation. During product installation, we ask that all small children be kept at a safe distance from the installers. The installers will provide further direction once on-site.

### What is the next step?

Call 888.297.1671 or email [dukeenergymultifamilyep@franklinenergy.com](mailto:dukeenergymultifamilyep@franklinenergy.com) to schedule an appointment for an energy assessment.

This program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.  
©2019 Duke Energy Corporation



Contact us today!

Phone: 888.297.1671 | Website: [duke-energy.com/multifamily](http://duke-energy.com/multifamily)  
Email: [dukeenergymultifamilyep@franklinenergy.com](mailto:dukeenergymultifamilyep@franklinenergy.com)

Note that this program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.  
©2019 Duke Energy Corporation



## Multifamily Energy Efficiency Program



It's what's on the inside that counts. Our FREE energy-saving lightbulbs and water-saving devices can help your tenants save money.



## Start saving now with the latest FREE energy-saving products.

### Multifamily Energy Efficiency Program

If you are a Duke Energy customer, your tenants may receive the following energy-saving products -- installed in each multifamily unit and qualifying common areas at no cost.

Standard, Globe, Candelabra, Recessed and Track LEDs



Use up to **90% less energy** and can save at least **\$80** over their lifetime in energy costs compared to traditional incandescent bulbs. A popular residential option, ENERGY STAR® light-emitting diodes, or LEDs, can be installed in bathrooms, track lights, ceiling fans, recessed lights and other high-usage permanent fixtures.

Exit Sign LEDs



Exit signs are necessary to keep us safe. We can help you save on operating and labor costs by replacing incandescent exit sign bulbs with LEDs.



Bathroom and Kitchen Faucet Aerators



Use up to **55% less water** than traditional 2.2-gallons-per-minute (gpm) faucets, which can reduce water and sewer costs, as well as the amount of energy used to heat the water.\*

Outer ring allows for adjustable flow



\*If water is heated by electricity, savings are not guaranteed.

Water-saving Showerheads



Use up to **40% less water** than traditional 2.5-gpm showerheads, which can reduce water and sewer costs, as well as the amount of energy used to heat the water.\*

Outer ring allows for adjustable flow



Hot Water Pipe Wrap



Reduces water and energy use by preventing heat loss while hot water travels through your building's pipes.\*

This program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.  
©2019 Duke Energy Corporation



## See what other property managers had to say.

### You guys got top marks

"I received the satisfaction survey and filled it out. You guys got top marks. I received a lot of compliments about how friendly and professional you all were. Thank you again for all that you did!"

- Asheville Property Manager

### They were so polite and professional

"I just wanted to let you know that your team did a wonderful job installing the energy-saving products. They were so polite and professional, which made the residents feel more at ease with the installation. I really appreciate all the hard work that went into making this project run so smoothly. We are now officially energy efficient!"

- Raleigh Property Manager

The program has been a huge success and very much appreciated

"The thing that stood out most for me is your willingness to contact all property managers in my district. You took control of the program and scheduled each property efficiently and effectively, resulting in less work for each property. The program has been a huge success and very much appreciated by the management company, properties and our residents. Thank you for your hard work!"

- Durham Property Management Company

**Sorry We Missed You**  
*Door post-it*



BUILDING A SMARTER ENERGY FUTURE®

# Sorry We Missed You!

Today we stopped  
by to install your  
**free energy-saving  
products**, but

\_\_\_\_\_  
\_\_\_\_\_



**Don't worry—you can still get your  
products! Simply contact your property  
manager to find out how.**

Learn more at [duke-energy.com/multifamily](https://duke-energy.com/multifamily). Note that this program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.

©2019 Duke Energy Corporation

## Property Manager Direct Mail Piece



Start saving now with the latest  
**FREE** energy-saving products.

Sign up today!

Phone 888.297.1671 | Website [duke-energy.com/multifamily](http://duke-energy.com/multifamily)  
Email [dukeenergymultifamilyeep@franklinenergy.com](mailto:dukeenergymultifamilyeep@franklinenergy.com)



Our **FREE** energy-saving lightbulbs  
and water-saving devices can help  
your tenants save money!



Address  
City, ST ZIP XXXXX

Use less energy, help your tenants save money and receive **FREE** products throughout your property by signing up for the Duke Energy Multifamily Energy Efficiency program. Your multifamily property can receive a **FREE** energy assessment, plus **FREE** energy-saving products installed in each unit and qualifying common areas – at no cost:

- Standard, globe, candelabra, recessed and track LEDs
- Bathroom and kitchen faucet aerators
- Exit-sign LEDs
- Showerheads
- Hot-water pipe wrap
- Comparable assessments could cost \$1,000-\$3,000



Sign up today!

Phone 888.297.1671  
Website [duke-energy.com/multifamily](http://duke-energy.com/multifamily)  
Email [dukeenergymultifamilyeep@franklinenergy.com](mailto:dukeenergymultifamilyeep@franklinenergy.com)

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## Case Study

### MULTIFAMILY ENERGY EFFICIENCY PROGRAM CASE STUDY

# Here's What They're Saying About Us

"The Duke Energy Multifamily program has been instrumental in reducing the cost of living in Bell communities, enhancing our environmental stewardship and differentiating our NC/SC properties in the marketplace. We look forward to a continued partnership with Franklin Energy and Duke Energy."

– Wes Winterstein, Vice President, Ancillary Services, Bell Partners Inc.

## ESTIMATED SAVINGS FOR RESIDENTS

Annual Electric Savings		Annual Electric Bill Savings	
<b>1,015 kWh</b>		<b>\$107</b>	
Value and Savings for Bell Partners and Its Residents Through 2018		Going Green Makes a Difference	
Annual Electric Savings	Value of Products and Energy Savings	So far Bell Partners and Duke Energy have delivered energy savings equivalent to:	Cars Taken Off the Road Trees Planted
<b>2,771,664 kWh</b>	<b>\$434,089</b>		<b>314 37,653</b>

## DUKE ENERGY AND BELL PARTNERS ARE GOING GREEN!

To date, Bell Partners and Duke Energy have collaborated to make nine communities more energy efficient by replacing standard lighting with LED bulbs, replacing inefficient faucets and showerheads with water-saving products, and insulating hot water heater pipes. The cost to Bell Partners and its residents? Nothing! In 2017 and 2018, Duke Energy provided and installed:

- \$152,000 worth of energy-saving products
- Over 26,000 LED lights
- Nearly 5,600 water-saving faucet aerators
- Over 1,800 energy-saving showerheads
- Nearly 14,000 feet of pipe insulation

Bell Partners residents can save an average of \$107 annually on their electric bill. The communities save ongoing O&M expenses. And with the help of Duke Energy, Bell Partners continues to be a leader in the green multifamily market.



## **A. Description**

Power Manager® (“Program”) is a residential demand response program that helps ensure power reliability during peak demand periods or if continuity of service is threatened. Duke Energy Carolinas, LLC (the “Company”) provides two program options designed to reduce load from air conditioning or electric heating when events are called.

The original Power Manager option utilizes a Load Control Device (LCD) installed near the outdoor unit of a qualifying AC. This enables a participating customer’s AC’s run-time to be reduced when the Company initiates a control event. The Company can perform cycling (allowing the AC to run a portion of each half hour during an event) or full-shed interruption (AC is prevented from running during an event) at any time to mitigate capacity constraints in the generation, transmission or distribution systems.

The LCD option is available to qualifying single family homeowners. Participants receive an incentive of an \$8 monthly credit on their July through October bills (\$32 annually).

The customer’s AC system experiences no adverse impacts because the load control device has built-in safeguards to prevent the “short cycling” of the AC. The indoor fan is not controlled and may run during an event circulating air.

Available since late December 2019, the program’s smart thermostat option utilizes a qualifying smart thermostat to remotely change participants’ temperature setting when the Company initiates a control event. By adjusting the thermostat’s setting (up for cooling or down for heating), the system’s run-time and energy use can be reduced during an event.

The Company has engaged EnergyHub to provide services in support of the smart thermostat option. Services include: the control system used in managing events, participant incentives, relationships with participating thermostat manufacturers, and coordinating marketing efforts between the Company and thermostat manufacturers.

The smart thermostat option is available to qualifying residential customers who have registered their thermostat(s) with participating manufacturers, currently: Alarm.com/Vivint, ecobee, Honeywell, Lux, Nest, Radio Thermostat and Sensi. Upon successful enrollment, customers are emailed a \$75 Visa e-gift card, and each subsequent year they remain on the program they are emailed a \$25 Visa e-gift card.

## **Audience**

The LCD option is available to the Company’s qualifying residential customers residing in owner-occupied, single-family residences with a qualifying central air-conditioning unit.

The LCD option is available to the Company’s qualifying residential customers who have installed, connected to the internet and registered their qualifying smart thermostat with the thermostat’s manufacturer.

## **B & C. Impacts, Participants and Expenses**

PowerManager<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$77.7</b>	<b>\$74.8</b>	<b>96%</b>
<b>Program Cost</b>	<b>\$19.4</b>	<b>\$14.3</b>	<b>74%</b>
<b>MW<sup>2</sup></b>	<b>616.2</b>	<b>593.2</b>	<b>96%</b>
<b>MWH</b>	<b>0.0</b>	<b>N/A</b>	<b>-</b>
<b>Units<sup>3</sup></b>	<b>580,159</b>	<b>558,495</b>	<b>96%</b>

**Notes on Tables:**

- 1) Values are reflected at the system level.
- 2) MW capability at the generator derived from the average reduction during the May - September control season achieved by a full shed of participating air conditioners. At month-end December 2020, we had the ability to shed 609.4 MW (at the plant), representing 98.9% of the as filed capability.
- 3) Units included in filing represent average kW at the meter during the May - September control season. YTD value is based on 289,352 Power Manager devices and 32,503 thermostats at month-end December 2020.

**D. Qualitative Analysis****LCD Option**

Results of Nexant's 2019 Evaluation, Measurement and Verification study of the LCD option indicated a decrease in load reduction capabilities from previous years. After working with Nexant to validate these findings, the Company and its LCD supplier, Eaton Corporation, investigated possible reasons.

Ultimately, the issue was found to be a change implemented prior to the 2019 event season enabling the Company's Demand Response Operations team to geographically target events based on the Company's three transmission regions. With NC having all three and SC having two of the regions, there are five distinct geographic areas from which the DR team could select for Power Manager events.

It is important to note that the regional control capability was not set up for the Company's Energy Control Center. As a result, had there been an actual emergency, the ECC initiated control event would have resulted in the expected load reduction seen in previous years.

Four test events were conducted in 2020:

- June 3<sup>rd</sup> – a brief full-shed test using the regional approach with all five areas was conducted. As expected, the results from this test mirrored the M&V findings from 2019.
- June 23<sup>rd</sup>, August 27<sup>th</sup> and September 2<sup>nd</sup> – brief full-shed tests were conducted using the non-regional event command structure used prior to 2019. All three showed results in line with previous M&V evaluations and Company observed load reductions in and before 2018.

On September 11<sup>th</sup>, the ECC initiated a cycling event to maintain reserve margins for the DEC generation system. The LCD system delivered the expected load reduction, demonstrating the effectiveness of the program in an actual event.

COVID-19 resulted in the Company halting all field work, except emergency service calls, beginning March 16<sup>th</sup>. For over 3 months, switch installations, inspections, reconnections and removals were stopped. Franklin Energy, the Company's field services contractor, furloughed nearly all their employees, keeping only a small staff to handle customers reporting issues with their HVAC system.

In mid-June, the Company gave approval for Franklin Energy to begin bringing back their employees for training and resumption of field work. Franklin Energy divided their team's return into three groups spread over three weeks in order to limit exposure risk among the teams. The first two days of each group's return were spent in training on safe work practices, COVID-19 safety protocols and other work processes. The first of these sessions began June 22<sup>nd</sup> and field work resumed June 24<sup>th</sup>.



Since then, except for one field tech who tested positive in July, the Franklin Energy staff has been COVID free. This positive test resulted in a temporary work stoppage as workers quarantined to ensure no additional positive cases were reported.

#### Smart Thermostat Option

Because enrollment and ongoing support of the smart thermostat option do not require field visits, COVID-19 had little or no effect on the rollout or operational efforts. EnergyHub and its staff are based in Brooklyn, NY. With the NYC area being one of the first regions to be hit hard with the virus, there were some very minor initial delays as EnergyHub support staff began the transition to work at home.

Originally, the smart thermostat option was designed for reducing only summer AC load. The Company worked with EnergyHub to develop electric heating load reduction to support the inclusion of a winter-focused program option. This new capability was added to the Power Manager Riders in NC and SC in 2020 (October and December respectively).

Per the Riders, the Company suspended summer only enrollments in the smart thermostat option on December 31, 2020. Customers enrolled on or before December 31 in the summer only option were grandfathered. From that date forward, enrollments are for the winter-focused option, allowing the Company to control participants' central AC and electric central heating system via qualifying smart thermostat.

Five smart thermostat events were called in the summer of 2020: July 15, July 17, July 27, August 27 and September 3. These successful events served as tests and learning experiences for the Company, EnergyHub and participating customers.

### E. Marketing Strategy

#### LCD Option

In response to COVID, all marketing of the LCD option was stopped for approximately three months beginning in mid-March. Prior to and following this marketing cessation, outbound telephone calls were the primary marketing channel; with additional outreach via email, the Company's residential newsletter, banner ads on the Company's website and a Facebook ad.

Despite the reduced marketing, net growth for the year was 2,494 customers and 2,879 air conditioners. At year-end, there were 240,551 customers (NC: 182,420 and SC: 58,131) and 289,352 air conditioners (NC: 218,745 and SC: 70,607) on the program.

#### Smart Thermostat Option

The primary marketing channel for the smart thermostat option is through the participating thermostat companies. Duke Energy, working through EnergyHub, collaborated with these companies in the development of the Power Manager smart thermostat marketing messages.

Once a customer has installed and registered their smart thermostat with the manufacturer, they will be presented with information on the program. This information is shared through various means and times by each thermostat company – channels include the thermostat app, mobile app, email communications, etc. Using these different channels, customers are provided access to the program's requirements, information and enrollment application.

The Company supplemented the thermostat manufacturers' marketing by including messaging throughout the year with various promotions of smart thermostats available through the Company's Online Savings Store.

Late in the year, to help kick-off the new winter-focused option, the Company utilized a limited time offer that increased the \$75 enrollment incentive to \$90 for customers who enrolled by December 31, 2020.

At year-end, 24,743 customers (32,503 thermostats) were participating in the smart thermostat option, an excellent start for this new program and exceeding the goal of 18,000 for the first year.

The Company updated the Power Manager website, revised existing videos and created a new video in support of the smart thermostat option. These may be seen on the Power Manager website: <http://www.duke-energy.com/north-carolina/savings/power-manager.asp>.

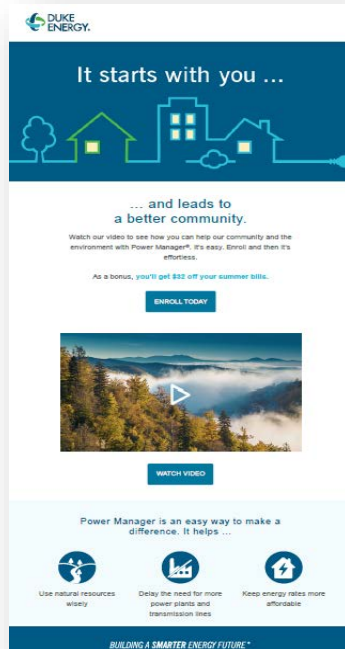
#### **F. Evaluation, Measurement and Verification**

Results for the Summer 2019 Power Manager program were completed in the second quarter of 2020. The results of the evaluation however, showed evidence of M&V feeder issues that led to lower than expected results. Subsequently, Duke Energy identified and corrected the issues. Nexant and Duke Energy agreed to conduct a subsequent impact analysis for the 2020 Power Manager season in order to verify those corrective measures and to re-calibrate the program's performance under fully operational conditions. The results of the Summer 2020 Power Manager evaluation, scheduled for First Quarter 2021, will be included as an appendix to the Summer 2019 evaluation report.

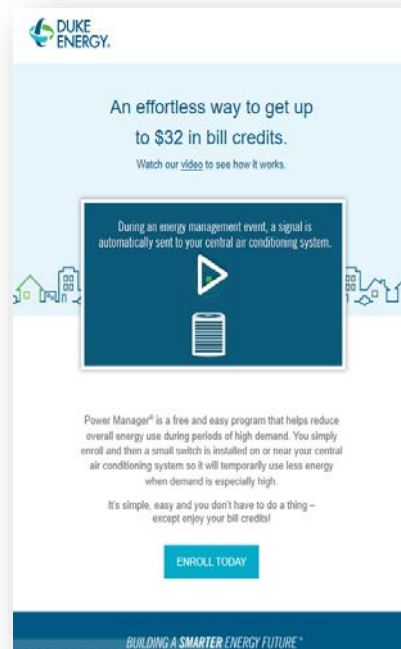
## G. Appendix

### LCD Option Marketing Examples: Emails

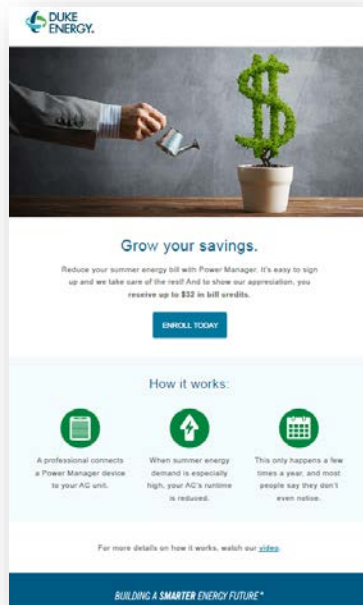
#### February



#### February Follow-up



#### August



Facebook – February and early March

(After the ad below had been up for a short time, Facebook pulled it because of the word “free”. The second sentence was changed to “It’s an easy way to make a difference.” and the ad was reinstated.)

 **Duke Energy**  
Sponsored · ⚙️

Get up to \$32 off your bill when you enroll in Power Manager. It's easy and it's free.



**GROW YOUR SAVINGS**

DUKE-ENERGY.COM/POWERMANAGER

**Get up to \$32 each year**

Enroll in Power Manager

[Sign Up](#)

Like Comment Share

Residential Newsletter – October



### Help the environment.

Power Manager® helps reduce energy demand when it's higher than normal.

[ENROLL TODAY](#)

Website Banner Ad – various times

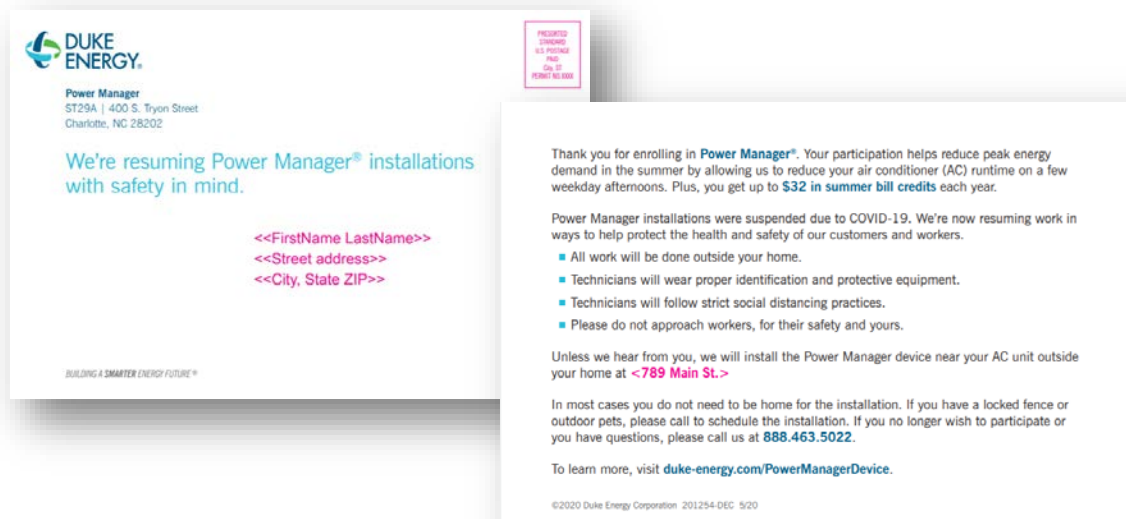


### Grow your savings >

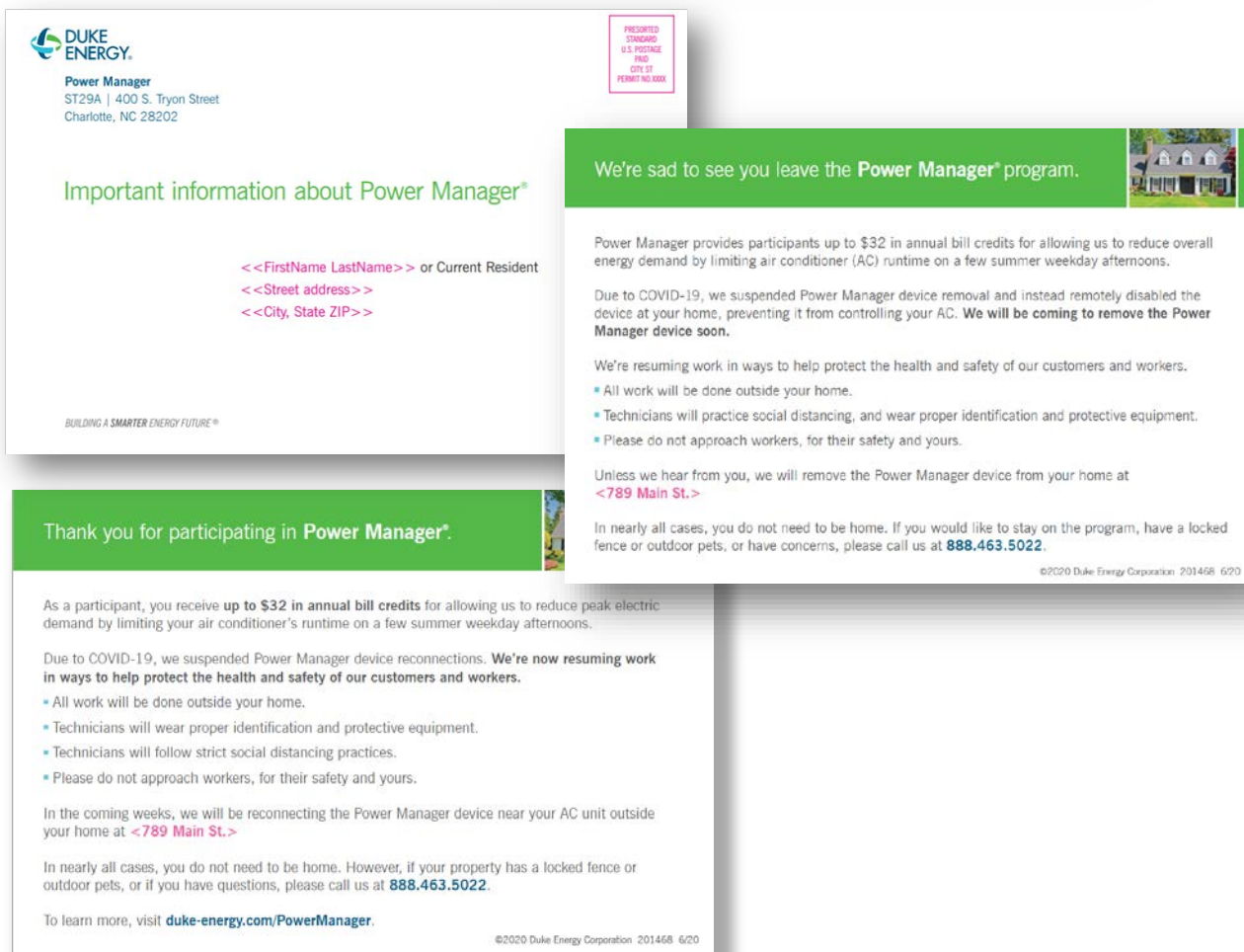
Enroll in EnergyWise® Home and get up to \$147 in annual bill credits.

## Return to Work – Customer Notification Postcards

### Installations



### Removals & Reconnections



## Smart Thermostat

### Co-marketing with Online Savings Store

July – “We’re here to help”  
Direct Mail

**WE ARE HERE TO HELP YOU SAVE.**

Shop our smart thermostat sale today!

**Save up to \$100 off a Google Nest thermostat.**

**Why we can help you save this summer:**  
The Online Savings Store can help you save with a variety of products that can help you make your home more energy efficient. Considering making the switch to a smart thermostat? Shop by August 7 and get huge savings on a Google Nest thermostat. We'll even ship your order for FREE!

**WHY SWITCH TO A SMART THERMOSTAT?**

- REMOTE ACCESS**  
With the use of your phone, you can adjust the temperature from anywhere.
- SAVE ENERGY**  
You can save an average of 10% to 12% on heating bills and 15% on cooling bills.
- EASY INSTALLATION**  
Most people install their smart thermostat in 30 minutes or less.

**Order online**  
duke-energy.com/Here

Log in with your phone number or account number and the last four digits of the account holder's Social Security number.

**Smart thermostat sale ends August 7.**

**Enroll your smart thermostat. Get \$75!**  
After you purchase and install your discounted smart thermostat, successfully enroll in the Google/Power Smart Thermostat program to receive a \$75 e-gift card (limit 1 per household). Plus, you'll receive a \$25 e-gift card each year you are enrolled in the program. Visit duke-energy.com/Here2help to learn more.

**Google Nest Learning Thermostat**  
Learns your schedule to program itself, turns itself down when you are away and lets you change the temperature from your phone.  
Retail price: \$249  
Manufacturer sale: -\$50  
Duke Energy Program instant savings: -\$50  
Your price: \$149

**Google Nest Thermostat E**  
Its simple design and frosted display blend into the background. Change the temperature from anywhere with your phone.  
Retail price: \$169  
Manufacturer sale: -\$30  
Duke Energy Program instant savings: -\$50  
Your price: \$89

Visit the Online Savings Store for more deals on smart thermostats!  
Limit 2 smart thermostats per customer account. While supplies last.

## Email

**DUKE ENERGY** | Online Savings Store

**We are here to help you save on smart thermostats.**

The Online Savings Store can help you save with a variety of products that can help you make your home more energy efficient. Considering making the switch to a smart thermostat? Shop by August 7 and save up to \$100 on a Google Nest thermostat.

We'll even ship your order for FREE!

**SHOP NOW**

**Save \$100**  
**Google Nest Learning Thermostat**  
Learns your schedule to program itself, turns itself down when you are away and lets you change the temperature from your phone.  
Retail price: \$249  
Manufacturer sale: -\$50  
Duke Energy instant savings: -\$50  
Your price: \$149

**Save \$80**  
**Google Nest Thermostat E**  
Its simple design and frosted display blend into the background. Change the temperature from anywhere with your phone.  
Retail price: \$169  
Manufacturer sale: -\$30  
Duke Energy instant savings: -\$50  
Your price: \$89

### Enroll your smart thermostat. Get \$75!

After you purchase and install your discounted smart thermostat, successfully enroll in the Power Manager® Smart Thermostat program to receive a \$75 e-gift card (limit 1 per household). Plus, you'll receive a \$25 e-gift card each year you are enrolled in the program.

[LEARN MORE](#)



November – Black Friday

## We're here to help you save with our Black Friday Sale!

Save on a variety of smart thermostats. Shipping is even FREE!



**Google Nest Learning Thermostat**  
Learns your schedule to program itself, turns itself down when you are away and lets you change the temperature from your phone.

Retail price: \$249  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$50  
**Your price: \$149**

On sale: Nov. 25-Dec. 2



**ecobee Smart Thermostat with Voice**  
With SmartSensor to help manage hot or cold spots, it changes the way you experience comfort and puts you in control of your home.

Retail price: \$249  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$50  
**Your price: \$149**

On sale: Nov. 16-Dec. 2



**ecobee3 lite**  
Works with room sensors to measure temperature and occupancy in the rooms they're in to help manage hot and cold spots throughout the home. Sensors sold separately.

Retail price: \$169  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$30  
**Your price: \$89**

On sale: Nov. 16-Dec. 2



Visit the Online Savings Store for instant savings on more thermostats.



**Emerson Sensi™ Touch Smart Thermostat**  
Puts comfort control at your fingertips. At home or on the go, the easy-to-use interface lets you adjust your thermostat with just a tap.

Retail price: \$169  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$30  
**Your price: \$89**

On sale: Nov. 16-Dec. 2



**Honeywell Wi-Fi Smart Color Thermostat**  
Packed with smart features, a customizable touch screen and simple setup, you can change the screen's background color to match wall color, mood or favorite team.

Retail price: \$159  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$70  
**Your price: \$39**

On sale: Nov. 16-Dec. 5



Order online:  
**duke-energy.com/BlackFriday**

Log in with your phone number or account number and the last four digits of the account holder's Social Security number.

Limit 2 smart thermostats per customer account. While supplies last.

### Enroll your thermostat by Dec. 31 and get \$90!

After you purchase and install your discounted smart thermostat, successfully enroll in the EnergyWise® Home program to receive a \$90 e-gift card (limit 1 per household). Plus, you'll receive a \$25 e-gift card each year you are enrolled in the program. Visit [duke-energy.com/BlackFriday](http://duke-energy.com/BlackFriday) to learn more.

\*Instant savings comes from Duke Energy Progress' energy efficiency program.

Customer agrees to the Terms and Conditions when placing an order. Offer good while supplies last and total purchase limits per customer account at the incentive price apply. If you previously purchased from our Savings Store and are now over limit, you are ineligible to receive the above discounts but may still purchase non-discounted items through our online store. Products, prices, availability, specifications and offers are subject to change without notice. Customers must log in to their account using their Duke Energy Progress account number or phone number and the last four digits of their Social Security number to authenticate their eligibility. Duke Energy Progress Savings Store is available to eligible Duke Energy Progress residential customers. Terms and Conditions: 1. Products must be installed at the premise address associated with the account number purchasing the products. 2. Products cannot be used under any circumstances. 3. Duke Energy Progress reserves the right to revise incentive levels and/or equipment eligibility at any time. 4. Duke Energy Progress and the third-party vendor have agreed a confidentiality agreement to protect customer's personal information. 5. Agree to indemnify, hold harmless and release Duke Energy Progress and its affiliates from any actions or claims in respect to the installation, operation and disposal of equipment (and related materials) covered herein including liability from incidental or consequential damages. 6. Duke Energy Progress is not affiliated with the manufacturer or vendor; does not expressly or implicitly warrant the performance of installed purchased products and is not liable for any damage caused by the installation of these products or for any damage caused by the malfunction of the installed purchased products. Please direct all questions regarding a product to the applicable manufacturer. Any non-Duke Energy logo or trademark is owned by the respective manufacturer or its assignee. All rights reserved. Google, Google Nest Learning Thermostat and Google Thermostat E are trademarks of Google LLC. Duke Energy, 200 South Tryon Street, Charlotte, NC 28202. ©2020 Duke Energy Corporation. 2020BNC 062-0107 10/20

December – email follow-up to Online Savings Store purchasers of smart thermostats



Enroll and get \$90.

Thank you for purchasing a smart thermostat from our Online Savings Store. Now, joy awaits! Get a \$90 e-gift card for successfully enrolling in our Power Manager® smart thermostat option. Plus, you'll receive a \$25 e-gift card each year you stay enrolled.

ENROLL NOW

Hurry, offer ends Dec. 31.

To learn more about how the program works, visit our [website](#) or email us at [support@powermanagertstat.com](mailto:support@powermanagertstat.com).


\*If you enroll before Dec. 31, 2020, you will receive a \$90 enrollment e-gift card. If you enroll on or after Jan. 1, 2021, you will receive a \$75 enrollment e-gift card.


Duke Energy does not approve or endorse any one device or vendor over another and is not responsible for vendors' services and products.

Google and Google Nest Learning Thermostat are trademarks of Google LLC.



## Power Manager Website Landing Page

 [Products & Services](#) [MENU](#)




# Power Manager

Get rewards.

### Make a real difference in your community.


Power Manager\* is an easy way you can help reduce energy during periods of high demand. Plus, you'll get rewards each year you remain on the program. By participating you'll help preserve natural resources, delay the need for more power plants and keep energy costs lower for everyone.



Join the nearly 1 million Duke Energy customers


### Enrollment Options

There are two options for you to consider. Review each and choose what works best for you.



#### AC Control Device >

[LEARN MORE](#)



#### Smart Thermostat >

[LEARN MORE](#)

## A. Description

The purpose of Duke Energy Carolinas, LLC's (the "Company's" or "DEC") Small Business Energy Saver program (the "Program") is to reduce energy usage through the direct installation of energy efficiency measures within qualifying small non-residential customer facilities. All aspects of the Program are administered by a single Company-authorized vendor. Program measures address major end uses in lighting, refrigeration, and HVAC applications.

Program participants receive a free, no-obligation energy assessment of their facility and a recommendation of energy efficiency measures along with the projected energy savings, costs of all materials and installation, and up-front incentive amount from the Company. If the customer decides to move forward with the proposed project, the customer will make the final determination of which measures will be installed. The vendor then schedules the measure installation by electrical subcontractors at a time convenient for the customer.

The Program is designed as a pay-for-performance offering, meaning that the Company-authorized vendor administering the Program is compensated only for energy savings produced through the installation of energy efficiency measures.

### Audience

The Program is available to existing non-residential customers that are not opted-out of the Company's Energy Efficiency Rider. Program participants must have an average annual demand of 180 kW or less per active account.

## B & C. Impacts, Participants and Expenses

Small Business Energy Saver<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$27.1	\$15.3	56%
Program Cost	\$10.6	\$6.9	65%
MW	8.8	5.6	63%
MWH	50,048.1	30,611.7	61%
Units <sup>2</sup>	47,000,000	29,123,529	62%

1) Values are reflected at the system level.

2) Units reflect gross kWh.

## D. Qualitative Analysis

### Highlights

Lime Energy is the Company-authorized vendor administering the Program in both DEC and DEP service areas.

In 2020, the Company and vendor experienced many difficulties as a result of the COVID-19 virus. In March the program was shut down due to the high-risk nature of sending employees from business to business to market the program and to complete the free energy audit. The Program could complete some customer requested work, but the Program was not allowed to complete any marketing. In June the program started a gradual reopening that continue through November when we were at 80% staff. The program was paused for one week following Thanksgiving and then shutdown for the year in mid-December.

Even with the shutdown, customers still showed interest in the Program. We experienced higher than plan participation per salesperson the Program could have in the field, but we also had customers unwilling to act due to the uncertainty of the market due to the impacts of COVID-19. As spread of the

COVID-19 virus starts to slowdown and the vaccine distribution increases the uncertainty in the marketplace is resolved and customers will be willing to move forward with projects.

The Company continues to administer a customer satisfaction survey to Program participants since the Program's launch in DEC. Customers continue to give the Program high scores and generating a positive view of the Company.

### **Issues**

While LED lighting measures are expected to remain the primary driver of kWh savings in the Program for the foreseeable future, the Company has been actively working with our vendor Lime Energy to implement initiatives focused on increasing refrigeration and HVAC measure adoption.

### **Potential Changes**

In 2020, the Company filed changes to the Program to add a new option called SmartPath™ and to add process measures. SmartPath™ is an addition to the existing Small Business Energy Saver tariff that was approved in 2020 and planned to be launched in the first half of 2021. SmartPath™ is designed to minimize financial barriers to customer participation by allowing customers above 180 kW finance and implement energy efficiency upgrades with little to no upfront out of pocket costs.

The new process measures will allow the Program to provide measures that will have more of an impact on the Company's winter peak and will continue the Program efforts to extend projects beyond just lighting. As the Program continues to mature, the Company will continue to evaluate opportunities to add incentivized measures which fit the direct install program model and are suitable for the small business market.

### **E. Marketing Strategy**

The Program is marketed primarily using the following channels:

- Lime Energy field representatives
- Direct mail (letters and postcards to qualifying customers)
- Duke Energy Carolinas website
- Social media and search engine marketing
- Email & Duke Energy Business E-Newsletters
- Direct marketing & outreach via Program administrator
- Outreach via Duke Energy Business Energy Advisors
- Community events

All marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities and to emphasize the convenience of Program participation for the target market.

### **F. Evaluation, Measurement and Verification**

Evaluation activities commenced in late 2020, with an evaluation covering the period from January 2019 through June 2020. The evaluation will conduct virtual verification of measure installations and estimate energy and peak demand savings (both summer and winter) via engineering analysis. The evaluation will also assess the NTG ratio through the use of online customer surveys. In addition, the process evaluation will assess the strengths and weaknesses of current program processes and customer perceptions of the program.



## A. Description

The Non-Residential Smart Saver<sup>®</sup>P Prescriptive Program ("Program") provides incentives to Duke Energy Carolinas, LLC's (the "Company's") commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment. The program also uses incentives to encourage maintenance of existing equipment in order to reduce its energy usage. Incentives are provided based on the Company's cost effectiveness modeling to ensure cost effectiveness over the life of the measure.

Commercial and industrial customers can have significant energy consumption but may lack an understanding of the benefits of high efficiency alternatives. The Program provides financial incentives to help reduce the cost differential between standard and high efficiency equipment, offer a quicker return on investment, save money on customers' utility bills so it can be reinvested in their businesses, and foster a cleaner environment. In addition, the Program encourages dealers and distributors (or market providers) to stock and provide these high efficiency alternatives to meet increased demand for the products.

The Program promotes prescriptive incentives for the following technologies – lighting, HVAC, pumps, variable frequency drives, food services, process and information technology equipment.

## Audience

All of the Company's non-residential opt-in customers billed on an eligible Duke Energy Carolinas rate schedule may participate.

## B & C. Impacts, Participants and Expenses<sup>1</sup>

Non Residential Smart Saver Prescriptive<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$93.8</b>	<b>\$80.6</b>	<b>86%</b>
<b>Program Cost</b>	<b>\$25.2</b>	<b>\$16.3</b>	<b>65%</b>
<b>MW</b>	<b>25.7</b>	<b>20.5</b>	<b>80%</b>
<b>MWH</b>	<b>143,520.9</b>	<b>121,307.4</b>	<b>85%</b>
<b>Units</b>	<b>3,860,140</b>	<b>7,078,961</b>	<b>183%</b>

1) Values are reflected at the system level.

## D. Qualitative Analysis

### Highlights

The Program has developed multiple approaches, including paper and online options for incentive payment applications and instant incentives through the midstream marketing channel and the Online Energy Savings Store, for reaching a broad, diverse audience of business customers.

Several 2020 program trends are listed below.

- Customers continued to show interest in energy efficiency, however the program experienced a significant decline due to the negative effects that the COVID-19 pandemic had on business customers.
- Customers continued to utilize the midstream marketing channel by taking advantage of instant incentives through participating equipment distributors

<sup>1</sup> The information reflects results for the Non-Residential Smart Saver Prescriptive program in aggregate. Reference the Appendix for results by technology.

- More applicants used the online application.
- Outreach continued to support Trade Allies working with the program, but largely pivoted to virtual and phone outreach instead of in-person meetings
- Marketing efforts were reduced due to the COVID-19 pandemic
- A dedicated team of representatives responded to customer questions via phone and email, providing high levels of customer service.

Customers have several options for participating in the Program. The following chart summarizes 2020 participating customers by Program channel:

Program Option	Participating Customers*	% 2020 YTD Repeat Customer
Paper and Online Application Form	711	58%
Midstream Marketing Channel	1,427	55%
Online Energy Savings Store	741	62%
Multifamily Free Channel	7	5%

\*May include multiple facilities/sites for one customer.

\*\*The Multifamily Free Channel was suspended for the majority of 2020 due to COVID-19

#### PAPER AND ONLINE APPLICATIONS

During 2020, the Company paid incentives for 1,601 applications, consisting of 4,086 measures. Paid application volume was down 34% in 2020 vs. 2019. During 2020, 70% of applications were submitted via the online application portal, which is a slight increase vs. 2019. The average payment per paid application was \$3,929.

Customers continue to take advantage of an optional process introduced in 2018 to pre-verify equipment eligibility to have certainty that their selected equipment qualifies for an incentive prior to purchase, which is designed to overcome another barrier that can delay investment in EE projects.

Many Trade Allies participating in the application process reduce the customer's invoice by the amount of the Smart Saver® Prescriptive incentive and then receive reimbursement from Duke Energy. Customers often prefer this method rather than paying the full equipment cost upfront and receiving an incentive check from Duke Energy.

Duke Energy utilizes an internal database that allows the Program to self-administer Program applications and track program data.

#### MIDSTREAM MARKETING CHANNEL

The midstream marketing channel provides instant incentives to eligible customers at a participating distributor's point of purchase. Approved midstream distributors validate eligible customers and selected lighting, HVAC, food service and IT products through an online portal and use that information to show customers the reduced price for high efficiency equipment. Upon purchase, the distributor reduces the customer's invoice for the eligible equipment by the amount of the Smart Saver® Prescriptive incentive. Distributors then provide the sales information to Duke Energy electronically for reimbursement. The incentives offered through the midstream channel are consistent with current program incentive levels.

Energy Solutions provides the online portal for distributors to manage the paperless validation and incentive application. During 2020, approximately 49% of total Smart Saver Prescriptive incentives were paid through the midstream marketing channel. Duke Energy currently has 300 distributors signed up for the midstream channel, an increase of 10% from 2019.

#### ONLINE ENERGY SAVINGS STORE

Duke Energy also offers the Business Savings Store on the Duke Energy website, with orders fulfilled by the third-party EFI. The site provides customers the opportunity to take advantage of a limited number of incentivized measures by purchasing qualified products from an online store and receiving an instant

incentive in the form of a reduced purchase price. The incentives offered in the online store are consistent with current program incentive levels.

#### **MULTIFAMILY COMMON AREA FREE MEASURES**

In order to grow the number of accounts participating in EE, particularly in market segments where knowledge of EE is limited, the Program is now collaborating with the Residential Multifamily Direct Install program to offer free low-cost measures to multifamily common areas as well as tenant spaces. Multifamily properties that are being approached by the Residential Multifamily program's vendor, Franklin Energy, are now eligible to add on limited quantities of common area measures. The common area must be on an eligible commercial rate to participate. Measures such as LED screw-in lamps, LED exit signs, low flow shower heads, faucet aerators and pipe insulation are now being installed where possible in multifamily common areas as well as in residential spaces. For those properties that accept the measures, Franklin Energy will directly install them in the common areas when they are on site for the residential installations. Franklin Energy tracks the measures installed by property, as well as total installations and reports this information to the Smart Saver program team. This channel was suspended along with the Residential Multifamily Direct Install program for the majority of 2020 due to COVID-19.

#### **TRADE ALLY MANAGEMENT**

Over the years, the Program has worked closely with Trade Allies to promote the program to our business customers at the critical point in time when customers are considering standard or high efficiency equipment options. The Smart Saver® outreach team builds and maintains relationships with Trade Allies in and around Duke Energy's service territory. Existing relationships continue to be cultivated while recruitment of new Trade Allies also remains a focus. Most in-person Trade Ally outreach activities were suspended in 2020, however the Smart Saver® outreach team continued to provide support to Trade Allies virtually and via phone & email correspondence.

The Trade Ally outreach team educates Trade Allies on the program rules and the Smart Saver Program expectations for Trade Ally conduct. The Company continues to look for ways to engage the Trade Allies in promotion of the Program and to target Trade Allies based on market opportunities.

#### **Issues**

The primary issues that faced the program in 2020 were all related to responding and adapting to the new reality after the onset of the COVID-19 pandemic in late first quarter. Program participation experienced a sharp decline in April and slowly recovered through the remainder of the year. Fortunately, very few program activities require face-to-face contact, so the Smart Saver® team was able to continue processing incentive applications and administering the program while working from home.

#### **Potential Changes**

Standards continue to change and new, more efficient technologies continue to emerge in the market. Duke Energy periodically reviews major changes to baselines, standards, and the market for equipment that qualifies for existing measures and explores opportunities to add measures to the approved Program for a broader suite of options.

Duke Energy is also considering new and innovative ways to reach out to customer segments that have had a lower rate of prescriptive incentive applications and considering options to partner with other Duke Energy EE programs to cover gaps in the market and ultimately, make it easier for customers to participate in Smart Saver incentives.

The Duke program team would like to drive deeper customer savings and increase participation in technologies beyond lighting. The Midstream distributor channel has proven to be efficient and customer friendly, influencing energy efficiency at the point of sale. Efforts are underway to build upon the success of the Midstream channel by promoting a similar Upstream offer with manufacturers for existing food service and HVAC technologies only.

## E. Marketing Strategy

Program marketing efforts were greatly reduced in 2020 in response to the COVID-19 pandemic and the need for Duke Energy marketing to focus first on more relevant and appropriate messaging to customers regarding pandemic-related assistance.

The marketing plan for 2021 includes direct marketing such as email and direct mail, online marketing, print marketing and supporting partnerships.

The internal marketing channel consists of assigned Large Business Account Managers, small and medium Business Energy Advisors, and Local Government and Community Relations, who all identify potential opportunities as well as distribute program informational material to customers and Trade Allies. Duke Energy has Business Energy Advisors in the Carolinas area to perform outreach to unassigned small and medium business customers. The Business Energy Advisors follow up on customer leads, assist with program questions, and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the Business Energy Advisors contact customers with revenue between \$60,000 and \$250,000 to promote the Smart Saver® programs. The Economic and Business Development groups also provide a channel to customers who are new to the service territory.

## F. Evaluation, Measurement and Verification

The combined DEC/DEP process and impact evaluation for the Non-Residential Smart Saver Prescriptive Incentive program for the period of March 2017 through December 2018 began the first quarter of 2019. The final report was completed in July 2020.

A process evaluation to determine free ridership and spillover was conducted. The process evaluation included interviews with program management. Main Channel Customer, Midstream Customer and Trade Ally surveys were conducted to assess program awareness, satisfaction and installation decisions. Program materials were also reviewed to fully understand the specifics of the program design.

The impact evaluation consisted of engineering desk reviews as well as on site metering for a subset of lighting measures. An online survey with Midstream lighting customers was performed to verify purchase and installation of lighting measures. Program supplied tracking databases, project documentation and Technical Reference Manuals from Ohio and neighboring states were also be used to estimate verified energy and demand savings for the Smart Saver Prescriptive program.

## G. Appendix

Non Residential Smart Saver Energy Efficient HVAC Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$2.0</b>	<b>\$7.4</b>	<b>370%</b>
<b>Program Cost</b>	<b>\$1.4</b>	<b>\$2.5</b>	<b>180%</b>
<b>MW</b>	<b>0.8</b>	<b>1.7</b>	<b>222%</b>
<b>MWH</b>	<b>2,546.7</b>	<b>9,270.8</b>	<b>364%</b>
<b>Units</b>	<b>2,537,729</b>	<b>4,349,144</b>	<b>171%</b>

1) Values are reflected at the system level.



Non Residential Smart Saver Energy Efficient Lighting Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$87.2	\$72.0	83%
Program Cost	\$21.5	\$13.1	61%
MW	23.9	18.4	77%
MWH	131,137.4	109,554.3	84%
Units	1,299,824	2,726,149	210%

1) Values are reflected at the system level.

Non Residential Smart Saver Energy Efficient Food Service Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$1.9	\$0.2	12%
Program Cost	\$1.4	\$0.5	37%
MW	0.3	0.0	12%
MWH	4,363.0	502.9	12%
Units	9,091	1,430	16%

1) Values are reflected at the system level.

Non Residential Energy Efficient Pumps and Drives Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$2.3	\$0.8	33%
Program Cost	\$0.7	\$0.2	26%
MW	0.7	0.2	31%
MWH	4,603.2	1,402.4	30%
Units	4,102	1,172	29%

1) Values are reflected at the system level.

Non Residential Energy Efficient ITEE<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$0.0	\$0.0	4%
Program Cost	\$0.1	\$0.0	21%
MW	0.0	0.0	-
MWH	323.5	9.9	3%
Units	5,135	118	2%

1) Values are reflected at the system level.

Non Residential Energy Efficient Process Equipment Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$0.3	\$0.2	68%
Program Cost	\$0.2	\$0.0	17%
MW	0.1	0.2	241%
MWH	547.1	567.1	104%
Units	4,260	948	22%

1) Values are reflected at the system level.

**A. Description**

Duke Energy Carolinas, LLC's (the "Company's") Non-Residential Smart Saver® Custom Assessment (the "Program") offers financial assistance to qualifying commercial, industrial, and institutional customers to help fund an energy assessment and retro-commissioning design assistance in order to identify energy efficiency conservation measures of existing or new buildings or systems. The detailed study and subsequent list of suggested energy efficiency measures help customers to utilize the Non-Residential Smart Saver® Custom. The Program delivers a detailed energy report that includes the technical data needed for the Non-Residential Smart Saver® Custom Program and assistance with the Non-Residential Smart Saver® Application. All kWh and kW savings identified from measures implemented as a result of the pre-qualified assessments are attributed to Smart Saver Custom Program.

The intent of the Program is to encourage energy efficiency projects that would not otherwise be completed without the Company's technical and financial assistance. The Program's application requires pre-qualification for eligibility. Assessments are performed by a professional engineering firm pre-selected and contracted by the Company. The current engineering is Willdan.

The program was modified in 2017 to allow customers to choose one of the firms the Company contracted or to seek third party engineering assistance of their own selection and receive the same financial assistance. Pre-established criteria ensuring that the Program maintains high standards for engineering and work quality must be met for the funds to be released. This modification, which provided customers with more flexibility and choices, is expected to drive an increase in participation.

In 2019, the program again modified its approach again by utilizing a "virtual" approach to the assessment. Using energy modeling software called NEO from Willdan and collecting all building information remotely will allow the audit to be completed in 2-3 weeks for less cost. Each audit has a fixed cost of \$5,000 which is covered 100% by the program. In 2020, the program was expanded to include buildings with process loads such as manufacturers. Program parameters are a focus on customers with a minimum demand of 180 kW with those below being serviced by Small Business Energy Saver®. The goal of the program is to perform 30-50 assessments annually.

**Audience**

Pre-qualified non-residential electric customers, except those that choose to opt out of the Program, are eligible.

**B & C. Impacts, Participants and Expenses**

Non Residential Smart Saver Custom Technical Assessments<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$4.1</b>	<b>\$0.5</b>	<b>13%</b>
<b>Program Cost</b>	<b>\$1.4</b>	<b>\$0.3</b>	<b>23%</b>
<b>MW</b>	<b>0.9</b>	<b>0.1</b>	<b>8%</b>
<b>MWH</b>	<b>7,950.2</b>	<b>1,413.8</b>	<b>18%</b>
<b>Units</b>	<b>5,064</b>	<b>5</b>	<b>0%</b>

1) Values are reflected at the system level.

**D. Qualitative Analysis****Highlights**

Participation in 2020 included 59 customers completing an application for an energy assessment. Of these, 33 assessments were completed while 13 customers thus far have selected projects to pursue resulting in a Smart Saver Custom application.

## **E. Marketing Strategy**

The marketing strategy for the Program is to work with those customers that need technical and financial assistance as a companion to their internal resources. Given the facility-wide approach, many of the energy savings opportunities are complex and interactive in nature which fits well with the end-to-end involvement utilized in the Program. Typical customer marketing activity involves direct marketing from Business Account Managers, electronic postcards, e-mails, and information attained through the Company's website and direct customer inquiries. Marketing in the future may shift as the virtual modeling software becomes more applicable. The opportunity to receive a quick readout of a building's efficiency level for a nominal cost will be a compelling message to Duke Energy customers.

## **F. Evaluation Measurement and Verification**

No evaluation activities occurred in 2020.

## A. Description

Duke Energy Carolinas, LLC's (the "Company's") Non-Residential Smart Saver® Custom Incentives (the "Program") offers financial assistance to qualifying commercial, industrial and institutional customers (that have not opted-out) to enhance their ability to install cost-effective electrical energy efficiency projects.

The Program is designed to meet the needs of the Company's customers with electrical energy saving projects involving more complicated or alternative technologies, or with measures not covered by the Non-Residential Smart Saver Prescriptive Program. The intent of the Program is to encourage energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance.

Unlike the Non-Residential Smart Saver Prescriptive Program, the Program requires pre-approval prior to the project initiation. Proposed energy efficiency measures may be eligible for customer incentives if they clearly reduce electrical consumption and/or demand.

The two approaches for applying for incentives for this Program are Classic Custom and Smart Saver Tools. Each approach has a method by which energy savings are calculated, but the documents required as part of the application process vary slightly between the two.

Currently the application forms listed below are located on the Company's website under the Smart Saver® Incentives (Business and Large Business tabs).

- Custom Application, offered in word and pdf format.
- Energy savings calculation support:
  - Classic Custom excel spreadsheet approach (> 700,000 kWh or no applicable Smart Saver Tool)
    - Lighting worksheet (excel)
    - Variable Speed Drive (VFD) worksheet (excel)
    - Compressed Air worksheet (excel)
    - Energy Management System (EMS) worksheet (excel)
    - General worksheet (excel), to be used for projects not addressed by or not easily submitted using one of the other worksheets
  - Smart Saver Tools approach (< 700,000 kWh)
    - HVAC & Energy Management Systems
    - Lighting (no project size limit)
    - Process VFDs
    - Compressed Air

The Company contracts with AESC to perform technical review of applications. All other program implementation and analysis is performed by Duke Energy employees or direct contractors.

## Audience

All of the Company's non-residential electric accounts billed on eligible rate schedules, except those that choose to opt-out of the Program, are eligible.

**B & C. Impacts, Participants and Expenses**Non Residential Smart Saver Custom<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$34.7</b>	<b>\$15.9</b>	<b>46%</b>
<b>Program Cost</b>	<b>\$10.8</b>	<b>\$5.8</b>	<b>54%</b>
<b>MW</b>	<b>7.7</b>	<b>4.8</b>	<b>62%</b>
<b>MWH</b>	<b>67,082.3</b>	<b>21,156.7</b>	<b>32%</b>
<b>Units</b>	<b>45,866</b>	<b>10,153</b>	<b>22%</b>

1) Values are reflected at the system level.

**D. Qualitative Analysis****Highlights**

Customers continue to identify energy efficiency opportunities eligible for incentives under this Program. In 2020, 166 new pre-approval applications were submitted, of which 71 were new construction projects. Additionally, 97 projects were enrolled in new construction which precedes a Smart \$aver Custom application.

Smart \$aver Custom Incentives program uses a flat rate incentive for both energy and demand savings.

Efforts to educate trade allies and vendors who sell energy efficient equipment have been very successful. In many cases, vendors will submit the paperwork for the customer, eliminating a barrier for customers that do not have the resources to devote to completing the application.

The Program launched a fast track option for 2017 which gives customers the ability to pay a fee to speed up their application processing time to seven business days. This fee is passed through to the vendor for its cost to expedite the application.

As of the end of 2019, Custom-to-Go was retired and replaced with the Smart \$aver Tool. For the lighting tool only, the customer can submit one file for both Prescriptive and Custom reducing some of the customer's administrative burden.

**Issues**

The Program application process is considered burdensome by some customers due to the individual and technically intensive review required for all projects applying for a custom incentive. Each year, Program staff explores ways to reduce the length of the application. By streamlining processes, the average processing time has dipped to 20 days for all states/jurisdictions.

The technical review often requires customers (or their vendors) to quantify the projected energy savings from the proposed project. This process can be lengthy and may require some level of engineering expertise. Where necessary, this requirement will continue, thus ensuring that incentives are being paid for cost-effective verifiable efficiency gains. Indications are that the Smart \$aver Tools and online application portal have relieved some of this burden.

The custom program is subject to large fluctuations in performance due to the importance of a small number of large projects. Although the number of small projects is significant compared to the number of large projects, the large projects drive the majority of annual impacts.

The custom program is still limited by customers who are opted out of the EE Rider. Those customers who are opted out are not eligible to participate and any projects completed by those customers are lost

opportunities. The custom program is actively working with internal resources (large account managers and Business Energy Advisors) to determine if opting in to the EE Rider for a potential project is the best option for customers currently opted out.

Finally, the custom program continues to see changes in available technologies as specific measures become eligible for Smart \$aver Prescriptive.

### **Potential Changes**

The Custom program continues to evaluate additional improvements to enhance participation, processing speed and program efficiency.

### **E. Marketing Strategy**

The Company will continue the Program marketing efforts in 2020 through various marketing channels that include but are not limited to the following:

- Direct mail (letters and postcards to qualifying customers)
- Duke Energy website
- Community outreach events
- Small Business Group outreach events
- Paid advertising/mass media
- Social media promotions
- Trade ally outreach
- Account managers
- Business Energy Advisors

These marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation.

Non-residential customers learn of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies who sell equipment and services to all sizes of nonresidential customers. Large business or assigned accounts are targeted primarily through Company account managers. Unassigned small to medium business customers are supported by the Company's Business Energy Advisors. The Business Energy Advisors follow up on customer leads, assist with program questions, and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the Business Energy Advisors promote the program to customers with electrical costs between \$60,000 and \$250,000.

The internal marketing channel consists of Large Business Account Managers and Local Government and Community Relations who all identify potential opportunities as well as distribute program informational material to customers and trade allies. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

The Program launched a new marketing channel in 2017 called New Construction Energy Efficiency Design Assistance (NCEEDA) to identify energy efficiency projects for customers currently underserved in the SMB market. This channel will utilize the vendor Willdan Energy Solutions to help identify those opportunities, complete savings calculations, and submit applications for the customer. As of January 24, 2020, DEC has 233 active and completed enrolled projects in the NCEEDA offering, representing 32.3 million square feet of area. Of these, the 187 Smart \$aver Custom project applications represent 64.8 million kWh of energy savings.

#### **F. Evaluation, Measurement and Verification**

No evaluation activities occurred in 2019, however evaluation activities commenced in the first quarter of 2020. A final report, combined with DEP, is planned for the second quarter of 2021.

## **A. Description**

Duke Energy Carolinas, LLC's (the "Company's") Non-Residential Smart Saver® Performance Incentives (the "Program") offers financial assistance to qualifying commercial, industrial and institutional customers (that have not opted-out) to enhance their ability to install cost-effective electrical energy efficiency projects.

The Program is designed to encourage the installation of high efficiency equipment in new and existing nonresidential establishments as well as the performance of efficiency-related repair activities designed to maintain or enhance efficiency levels in currently installed equipment. The Program provides incentive payments to offset a portion of the higher cost of energy efficient installations that are not eligible under either the Smart Saver® Prescriptive or Custom programs. The types of measures covered by the Program include projects with some combination of unknown building conditions or system constraints or uncertain operating, occupancy, or production schedules. The specific type of measures are agreed upon with the Customer. The Program is delivered in close coordination with the existing Custom program team and shares resources for administrative review and payment processing. The Program requires pre-approval prior to project initiation.

The intent of the Program is to broaden participation in the Company's non-residential efficiency programs by providing incentives for projects that previously were deemed too unreliable to calculate an acceptably accurate savings amount predictively and, therefore, were not offered incentives. The program is also expected to provide a platform for gaining a better understanding of new technologies.

The key difference between the Performance Incentive Program and the Custom Program is that the customers in the Performance Incentive Program are paid incentives based on actual measured performance. For each project, a plan is developed to verify the actual performance of the project once completed and is the basis for the performance portion of the incentive.

The Program incentives will typically be paid out in the following manner, though payment installment quantities and timing may vary:

- Incentive #1: For the portion of savings that are expected to be achieved with a high degree of confidence, an initial incentive will be paid. This incentive is paid once installation is complete.
- Incentive #2: After performance is measured and verified, the performance-based part of the incentive will be paid out as follows:
  - If performance exceeds expectations, the incentive payout may be larger.
  - If performance does not meet expectations, the incentive payout may be smaller.

Application forms for applying for incentives are located on the Company's website.

The Company contracts with Alternative Energy Systems Consulting, Inc. (AESC) to perform technical review of applications. All other program implementation is performed by Duke Energy employees or direct contractors.

## **Audience**

All of the Company's non-residential electric accounts billed on eligible rate schedules, except those that choose to opt-out of the Program, are eligible.

## **B & C. Impacts, Participants and Expenses**



Non Residential Smart Saver Performance Incentive<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$11.8</b>	<b>\$2.0</b>	<b>17%</b>
<b>Program Cost</b>	<b>\$3.8</b>	<b>\$0.8</b>	<b>20%</b>
<b>MW</b>	<b>2.8</b>	<b>0.2</b>	<b>8%</b>
<b>MWH</b>	<b>22,097.8</b>	<b>5,961.3</b>	<b>27%</b>
<b>Units</b>	<b>26,334,797</b>	<b>67</b>	<b>0%</b>

1) Values are reflected at the system level.

## D. Qualitative Analysis

### Highlights

As new technologies are introduced and changes occur in the energy efficiency marketplace, performance incentives are the perfect tool to influence and reward customers who invest in energy efficiency. The Smart Saver Performance Incentives program was launched on January 1, 2017. Efforts to encourage internal resources, trade allies and vendors who sell energy efficient equipment to promote the Program and assist customers to participate are continuous and on-going. In addition, the Program is marketed closely with the Smart Saver Custom Program.

In 2020 the program received 12 new applications.

The program experiences large fluctuations in performance due to long project lead times, long monitoring and verification times, and the timing and sizes of projects. With a compelling value proposition and internal resources and trade allies getting comfortable with this unique program offering, participation is expected to continue to be strong.

The program is now able to offer both top and bottom cycle CHP to customers.

### Issues

Program management is monitoring a few areas.

- The preferred method for measurement and verification of performance is gathering, monitoring and analyzing customer billing history. However, energy savings are not significant enough at times to evaluate effectively through the review of billing information. If this is the case, sub-metering is required at the customer's expense and may be a hurdle due to the time and expense of monitoring and verifying savings.
- The Performance program cannot be offered to customers who are opted out of the EE Rider. Performance projects can easily carryover into multiple calendar years because of the monitoring and verification requirement, a situation which could make opting in more difficult to justify.
- Sometimes project M&V can span multiple years thus requiring a customer to be opted-in for multiple years. This is often not preferred, and we are beginning to see customers forfeit a portion of their project incentive to opt-out of the rider.
- Customers may not participate because of the risk of measured energy savings being less than expected and resulting in a smaller incentive payout.
- The program is having difficulty in finding cost effective projects. Typical Performance project with uncertainty in savings have been controls related, where savings are determined based on the part-

load characteristics of the measure or system optimization. These types of projects typically have the following characteristics which makes costs-effectiveness challenging:

- High first costs
- Little demand savings – low avoided costs
- Low measure life

The program will continue to evaluate projects on a case by case basis to ensure cost effective projects are incentivized.

### **Potential Changes**

The Company continuously considers functional improvements to enhance participation, processing speed and program efficiency.

### **E. Marketing Strategy**

The 2020 marketing strategy for the Smart \$aver Performance Incentive Program closely aligns with the Custom Program. The goal is to educate the Company's non-residential customers about the technologies incentivized through both programs, as well as the benefits of installing energy-efficient equipment. These efforts encompass a multi-channel approach including but not limited to the following:

- Email (targeted customers)
- Direct Mail (letters to qualified/targeted customers)
- Duke Energy Carolinas website
- Community outreach events
- Print advertising/mass media
- Target customer outreach
- Industry Associations
- Large Account Managers
- Business Energy Advisors
- Trade Ally Outreach

Marketing efforts are designed to create customer awareness of the Program, to educate customers on opportunities to save energy, and to emphasize the convenience of Program participation.

Non-residential customers learn of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies who sell equipment and services to all sizes of nonresidential customers. Large business or assigned accounts are targeted primarily through Company account managers. Unassigned small to medium business customers are supported by the Company's Business Energy Advisors. The Business Energy Advisors follow up on customer leads, assist with program questions, and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the Business Energy Advisors contact customers with electrical costs between \$60,000 and \$250,000 to promote the program.

The internal marketing channel consists of Large Business Account Managers, Business Energy Advisors, and Local Government and Community Relations who all identify potential opportunities as well as distribute program informational material to customers and trade allies. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

### **F. Evaluation, Measurement and Verification**

No evaluation activities occurred in 2020. Future evaluation timing will depend upon sufficient participation.

## A. Description

Duke Energy Carolinas, LLC's (the "Company's" or "DEC") EnergyWise Business (the "Program") is an energy efficiency and demand response program for non-residential customers that allows the Company to reduce the operation of participants' air conditioning units to help manage the power grid. The Program provides customers with options for how they would like to participate. In exchange for participation, the Company applies an annual incentive directly to their bills.

For each air conditioning or heat pump unit that they have, Program participants can choose between a Wi-Fi thermostat or a load control switch professionally installed for free by the Program. In addition to choosing the equipment, participants also choose the cycling level at which they participate—30%, 50% or 75%. The levels represent the percentage of the normal on/off cycle of the unit that is reduced. During a conservation period, Company sends a signal to the thermostat or switch to reduce the amount of time a unit is on by the percentage the participant selected. For participating at the 30% level the customer receives a \$50 annual bill credit for each unit, \$85 for 50% cycling, and \$135 for 75% cycling. Finally, participants that have a heat pump unit with electric resistance emergency/back up heat and choose the thermostat can also participate in a winter option that allows the Company to control the emergency/back up heat. For 100% control of the emergency/back up heat, the Company provides an additional \$25 annual bill credit.

Participants choosing the thermostat are given access to a portal that allows them to control their units from anywhere they have internet access. They can set schedules, adjust the temperature set points and receive energy conservation tips and communications from the Company. In addition to the portal access, participants also receive conservation period notifications. Notifications allow participants to make adjustments to their schedules or notify their employees of the upcoming conservation period. Participants are allowed to override two conservation periods per year either before or during the conservation period.

## Audience

The Program is available to existing non-residential customers that are not opted-out of the DSM portion of the Company's EE/DSM rider, Rider DSM; have at least one air conditioner or heat pump that operates to maintain a conditioned space on weekdays during the calendar months of May through September; and are not served under Schedules BC and HP, Riders NM, SCG, IS, PS or PSC. Also, customers must have an average minimum usage of 1,000 kWh during those same calendar months.

## B & C. Impacts, Participants and Expenses

EnergyWise for Business<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed <sup>3</sup>	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$3.5</b>	<b>\$2.1</b>	<b>62%</b>
<b>Program Cost</b>	<b>\$5.1</b>	<b>\$2.9</b>	<b>58%</b>
<b>MW</b>	<b>17.4</b>	<b>11.8</b>	<b>68%</b>
<b>MWH</b>	<b>2,557.6</b>	<b>1,297.2</b>	<b>51%</b>
<b>Units<sup>2</sup></b>	<b>20,180</b>	<b>13,084</b>	<b>65%</b>

1) Values are reflected at the system level.

2) Units represent average monthly kW at meter for demand response measures (10,694), plus individual participants for smart thermostat energy efficiency measure (2,390).

3) As filed values not included as program was not included in filing.

## **D. Qualitative Analysis**

### **Highlights**

During 2020, the Program was significantly impacted by shutdowns due to COVID-19. The program was shutdown completely from the end of March until June 15<sup>th</sup>, 2020. The program closed again for one week in November and the last two weeks of December. The shutdown time plus the removal of no longer active devices the result is the Program shrunk by 733 devices reducing the total installed devices in DEC to 12,152.

The door-to-door marketing (canvassing) used by the program was considered a high-risk activity. The program delayed restarting due to the risk. Once it was restarted, the Program used a phased approach to test safety protocols and use of PPE to keep everyone safe. The program only returned to 75% of the preCOVID levels.

### **Issues**

One factor that continues to impact the Program's overall performance is the high number of customers selecting to enroll in the 30% cycling option. Approximately 70% of customers are participating in this option. This is a slight improvement from the 74% participation in the 30% cycling option seen at the end of 2019. The original assumption when the Program was filed was that 50% of customers would select this option. Program staff worked with canvassers to improve their pitches to promote the higher cycling options, improving the current enrollment percentages and bringing them closer to the original assumptions. But, with the high percentage of customers participating in the 30% option in prior years, the overall percentage is slow to come down.

### **Potential Changes**

With the program struggling with cost effectiveness, and the change in DEC from a summer peaking utility to mostly winter peaking, the program is going to move to a maintenance mode. We have negotiated price reductions with our vendor that will improve the cost effectiveness and allow the program to maintain its current capacity levels.

## **E. Marketing Strategy**

In 2020 the Program continued the efforts of door-to-door marketing using a dedicated canvassing vendor. In addition to canvassing, the Program targets slightly larger and multi-location customers through Duke Energy's Business Energy Advisors.

## **F. Evaluation, Measurement and Verification**

The evaluation for the Smart Thermostat (EE) measure for the period of January 2018 – February 2019 was completed in February 2021. Impacts for the demand response portion (Summer 2021) for the program has subsequently begun with a final DR report scheduled for 2<sup>nd</sup> Quarter 2022.

**A. Description**

PowerShare® (“Program”) is a demand response program offered to commercial and industrial customers. The Program is comprised of Mandatory (“PS-M”), Generator (“PS-G”), and Voluntary (“PS-V”) options, and customers can choose from a variety of offers. Under PS-M and PS-G, customers receive capacity credits for their willingness to shed load during times of peak system usage. Energy credits are also available for participation (shedding load) during curtailment events. The notice to curtail under these offers can be rather short (15-30 minutes), although every effort is made to provide as much advance notification as possible. Failure to comply during an event could result in penalties.

**Audience**

The Program is offered to Duke Energy Carolinas, LLC’s (the “Company’s”) non-residential customers who have not opted-out and are able to meet the load shedding requirements.

**B & C. Impacts, Participants and Expenses**PowerShare<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$43.2	\$34.9	81%
Program Cost	\$13.6	\$12.1	89%
MW <sup>2</sup>	342.6	276.6	81%
MWH	0.0	N/A	-
Units <sup>3</sup>	322,565	260,390	81%

**Notes on Tables:**

- 1) Values are reflected at the system level.
- 2) MW capability derived by taking average over specific PowerShare contract periods. At month-end December 2020, we had the ability to shed 276.6 MW (at the plant), representing 81% of the as filed capacity.
- 3) Units included in filing represented average KW at meter, rather than number of participants.

**D. Qualitative Analysis****Highlights**

PS-M and PS-G continue to be well received by customers who have the flexibility to curtail load upon request in both North Carolina and South Carolina. PowerShare added more than 31MW of capability by March 2020, but those gains were offset in subsequent months by a significant reduction in participant loads due to COVID-19 impacts. Although the Company anticipates that most of those loads will recover in 2021, there is uncertainty as to whether they will return to pre-COVID levels.

There were no PowerShare curtailment events in 2020.

**Issues**

No current issues.

**Potential Changes**

No changes anticipated at this time.

**E. Marketing Strategy**

To date, marketing efforts for the Program have focused on the relationship between the Company's account executives and their assigned customers. As part of their normal contact with customers, the account executives introduce the Program, including any new options/offers, while explaining the value proposition to the customer. Account executives share in-house analytics that show the incentives for each offer as applied to the customer's specific load profile and provide marketing collateral to explain the details of all the Program offers.

#### **F. Evaluation, Measurement and Verification**

Planning for the PY 2020/2021 evaluation began late 2020. The evaluation will estimate verified demand (kW) impacts using a baseline testing approach (including regression-based and customer baseline, or, CBL) for the period June 1, 2020 through May 31, 2021. These impacts will include:

- a. Average kW demand impact per customer for each event, and on average across all events
- b. Total program kW demand impact for each event, and on average across all events

Note this evaluation is subject to events occurring during this time period. Guidehouse did not perform an evaluation for the 2019-2020 season, since no events occurred.